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ABSTRACT

A study investigated various developmental relationships between the attitudes of students toward reading and their reading achievement, with the intention of providing additional information concerning attitudes and attitude testing within school programs. Subjects, 876 students in grades 1 through 8 from a white, middle-class rural community, completed the Estes Reading Attitude Scale. Subjects' scores on the reading comprehension subtest of the Iowa Tests of Basic Skills were used to assess reading achievement. Results indicated: (1) a low but consistent positive relationship between students' attitudes toward reading and actual reading achievement; (2) achievement level in reading remained stable despite the considerable changes in attitude toward reading; (3) attitude toward reading appeared to be maintained through the grades until grade eight, in which there was a decrease; (4) correlations between students' attitudes toward reading achievement were significantly higher for female than for male students; (5) the drop in attitude in the total population was principally due to the drop in positive attitude of the male students in grades seven and eight; (6) the actual performance of male and female students in reading achievement showed no difference; (7) for students of lower reading achievement, attitudes toward reading decreased over time; and (8) attitude toward reading tended to follow the achievement in reading level of both normal and high readers. (Six tables and four figures of data are included; 86 references, the Estes Attitude Scales, and an appendix of data are attached.) (Author/RS)

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DEVELOPMENTAL RELATIONSHIPS BETWEEN STUDENTS' ATTITUDES TOWARD READING AND READING ACHIEVEMENT IN GRADES 1 THROUGH 8

A Thesis

Submitted

In Partial Fulfillment

of the Requirements for the Degree

Specialist in Education

BEST COPY AVAILABLE

Nancy White

University of Northern Iowa

August 1989

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ABSTRACT

The purpose of this study was to investigate various developmental relationships between the attitudes of students toward reading and their reading achievement with the intention of providing additional information concerning attitudes and attitude testing within school programs. The relationship between reading achievement and attitude toward reading over grade levels, and the relationship between students' attitude toward reading achievement according to gender and participation in special programs was also investigated.

The population of the study consisted of 876 students in Grades 1 through 8 from a white, middle-class rural community. The instrument used to measure the attitudes of students toward reading was the Estes Reading Attitude Scale. The reading comprehension subtest of the Iowa Tests of Basic Skills was used to assess the reading achievement of students. Raw scores on the tests were converted to percentile rank scores for use in the analysis.

Several conclusions concerning the relationships between students' attitudes toward reading and reading achievement were drawn from this study. The first conclusion was that there was a low but consistent positive relationship between students' attitude toward reading and actual reading achievement for all students. Second, the achievement level in reading appeared to remain stable despite the considerable changes in attitude toward reading. Third, attitude toward reading appeared to be maintained through the grades until

Grade 8, in which there was a decrease. Fourth, correlations between students' attitudes toward reading achievement were significantly higher for female students than for male students. The fifth conclusion was that the drop in attitude in the total population was principally due to the drop in positive attitudes of the male students in Grades 7 and 8. Sixth, the actual performance of male and female students in reading achievement showed no difference. Seventh, for students of lower reading achievement, attitudes toward reading decreased over time. Finally, attitude toward reading tended to follow the achievement in reading level of both normal and high readers.

This study by: Nancy White

Entitled: DEVELOPMENTAL RELATIONSHIPS BETWEEN STUDENTS' ATTITUDES TOWARD READING AND READING ACHIEVEMENT IN GRADES 1 THROUGH 8

has been approved as meeting the thesis requirement for the Degree of Specialist in Education.

Date	Chair, Thesis Committee
Date	Member, Thesis Committee
Date	Member, Thesis Committee
Date	Dean of the Graduate College

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July 17, 1989 — Date
Ned Ratekin — Chair, Thesis Committee

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CHAPTER I

INTRODUCTION

The fostering of positive attitudes toward reading should be an important universal objective of any reading program. It is believed that the development of attitudes precedes the development of interests. Kennedy and Halinski (1975) insisted that a positive attitude toward reading on the part of the student must be present before the goal of making students lifetime readers can be realized.

Much has been written concerning the question of "Can Johnny read?" Recently, educators have begun to ask, "Will Johnny read?" as they agree with Estes (1971) that the "value of reading ability lies in its use rather than its possession" (p. 135). As Estes said, "The necessary and sufficient conditions for reading to become a lifelong habit include both that he know how to read and that he like to read" (Estes, 1975, p. 2). The major goals of any reading program, stated Estes (1972), must be that students learn how to read and that they will read--even when they don't have to. He strongly emphasized that "there could be no more important objective of reading instruction than that pupils learn to love reading!" (1972, p. 2). As Huck (1973) has stated the problem:

> If we a child teach how to read, yet develop not the taste for reading, all of our teaching is for naught. We shall have produced a nation of "illiterate literates"--those who know how to read, but do not read. (p. 203)

Reading teachers cannot afford to ignore the attitudes of their students toward reading since attitudes often are important in the acquisition of reading skills and in the continued use of reading for information and for recreation. Several leading authorities (Bond & Tinker, 1973; Harris & Sipay, 1985; Heilman, 1972) indicated that attitudes toward reading must be developed and maintained if reading habits are to be retained in later life. Link (1984) concluded that "a child's attitude toward reading affects his reading interests, and reading interests affect the child's reading habits" (p. 21). Dryden (1982) stated that perhaps the single most crucial index of the kinds of readers that children will become is determined by their attitudes toward reading.

Teachers themselves have recognized the importance of attitudes in reading. Heathington and Alexander (1984) found that reading teachers consider developing positive attitudes toward reading so important that they rate it higher than such activities as teaching phonics, sight words, word meaning, silent reading, structural analysis, or study skills.

It is apparent that many professionals believe attitudes to be important in the development and utilization of one's reading potential. Attitudes, therefore, may be a vital concern for reading programs (Deck & Barnette, 1976).

Although few teacher would quarrel with the notion that attitudes are critical determinants of learning, students' attitudes toward specific subjects or toward school in general are not usually included

as part of a school's regular testing program (Estes & Vaughan, 1978). Two possible explanations for the absence of attitude measurement in school may be that attitudes are not well-understood by most people, other than to say they probably exist. Second, "even among those who would wish to do so, few people really believe attitudes can be measured" admitted Estes and Vaughan (1985, p. 64). This second explanation was reinforced by Teale (1983) who stated that attitudes cannot be easily measured, but can only be inferred. Estes and Vaughan (1985) further emphasized that despite their often misunderstood nature and the infrequent attention they receive, attitudes can and should be measured in planning for and evaluating students' educational experiences. It was further noted that frequently teachers make questionable assumptions about student reading attitudes. In order to provide educators with a more accurate picture of students' expressed feelings, students' attitudes toward reading should be measured with formal assessment techniques (Epstein, 1980).

Heathington and Alexander (1984) noted that despite the importance teachers placed on attitudes, they seemed to be unaware of instruments that measure attitudes toward reading. The history of attitude measurement in schools is meager. In addition, the instruments commonly available for measuring children's attitudes toward reading are not as well-developed as those for assessing reading attainments (Pumfrey, 1977).

Estes (1975) believed that "attitude not only can but should be measured as an outcome of educational experiences" (p. 6). Pumfrey (1977) stated that the appropriate use of reading tests can contribute to the improvement of the standards of literacy of our children. He cautioned, however, that the testing of reading should not be restricted to measuring cognitive abilities (e.g., accuracy, comprehension, and speed of reading). Children's attitudes toward reading are equally important. Estes and Vaughan (1978) agreed with Pumfrey, noting that paper and pencil "tests" of attitudes could easily be a standard part of assessment of the objectives of instruction when supplemented by informal but careful diagnosis.

Attitudes, along with interest, motivation, locus of control, self-concept, feelings, and emotions are included in what researchers in education refer to as affective concerns. It is these concerns or behaviors, Alexander and Filler (cited in Fredericks, 1982) noted, that are important to the reading process because they provide the desire and the will to read.

Despite frequent testimonies to the importance of developing a positive attitude toward reading, little research has been conducted in this affective domain and the results have shown contradictory outcomes. Many unanswered questions concerning relationships between reading achievement and attitudes toward reading still exist.

In 1976, Alexander and Filler noted that relatively little research has addressed the relationship between attitudes toward reading and achievement in reading. Summers (1976) reported that the

volume of information available on the assessment of reading attitudes was scanty in the light of the considerable importance given to the relationships between positive attitude and reading achievement in the literature. Even in 1986, Parker and Paradis noted that "the development or the change of attitudes for children as they proceeded through the elementary school grades has received little attention" (p. 313). In addition, research concerning a number of variables thought to be associated with attitudes toward reading, such as achievement, special programs, and sex has resulted in conflicting findings. In Lohman's (1983) study, recommendations for further research included investigating the relationship between attitude toward reading and achievement, sex, and grade placement.

According to Saks (1981), classroom teachers often assume that children's attitudes toward reading have a high positive relationship with achievement, but little investigation has been done to verify this relationship. Therefore, Saks (1981) encouraged more investigations to be done "to examine the indeterminate relationship between reading achievement and attitude so that teachers can learn to separate achievement from the affective aspects of reading" (P. 16). Davis (1978), after reviewing 110 research studies of student attitude toward reading, also recommended a need for further research in this area. She noted a need for research that compares the attitudes of average readers with the attitudes of children who have reading difficulties and also compares the attitudes of average readers with those of high achievers.

A better understanding of the relationship that exists between attitude toward reading and reading achievement will help the teacher of reading to gather, develop, and utilize methods of instruction. This will enable all students to develop the skills and attitudes necessary for life-long learning.

Statement of the Problem

The purpose of this study is to investigate the developmental relationships between the attitude of students toward reading and their reading achievement. The study will be conducted, therefore, to determine various relationships between attitude and achievement with the intention of providing additional information concerning attitudes and attitude testing within school reading programs.

The general question of the study is:

What is the relationship between attitude toward reading, as measured by the Estes Attitude Scale, and reading achievement, as measured by the Iowa Tests of Basic Skills reading subtest of students in Grades 1 through 8 in the Independence (Iowa) Community School District?

Specific questions to be answered include:

1. What patterns of attitudes toward reading exist across Grades 1 through 8?

2. Is the pattern of relationship between attitude and reading achievement for male students the same as for female students?

3. Is the pattern of relationship between attitude and reading achievement for students identified as Chapter 1 participants the same as for the total population?

4. Is the pattern of relationship between attitude and reading achievement for students identified as talented and gifted participants the same as for the total population?

This study will offer further information concerning students' attitudes toward reading including: attitude assessment in general, the relationship between reading achievement and attitude toward reading over grade levels, and the relationship of students' attitude toward reading and reading achievement according to gender and participation in special programs.

Limitations

A limitation to this study is the method by which students identified as Chapter 1 or talented and gifted were included. It is possible that the students are not in the program presently, but participated in previous years.

Another minor limitation which should be noted is that of external validity, since only one school district was investigated. It is felt, however, that this limitation does not seriously affect the findings of the study if it is understood that generalizations of the results to other school systems will be limited to districts similar to the one studied here.

Delimitations

Since this study is an investigation concerning the attitudes of white, middle-class students in Grades 1 through 8, other

socioecomonic and ethnic populations and students beyond the eighth grade will not be included in this research.

Assumptions

For the purposes of this study, the following assumptions are made:

1. Attitudes toward reading can be inferred from a verbal behavioral sample.

2. The instrument used to assess students' attitudes toward reading and the instrument used to measure students' achievement in reading were, in fact, the appropriate instruments.

3. The data obtained from the students were an accurate assessment of their performance.

4. in administering the assessment instruments, the classroom teachers followed the directions given by the researcher.

5. A cross section analysis of students' measures of attitude toward reading and reading achievement may be used as a basis for suggesting a longitudinal or developmental analysis of those variables over Grades 1 through 8.

Definition of Terms

The following definitions have been included to clarify terms used in this study:

Reading

Reading is the process of constructing meaning from written texts. It is a complex skill requiring the coordination of a number of interrelated sources of information. This process involves

translating signs and symbols into meaning and incorporating new meanings into existing cognitive and affective systems (Anderson, Hiebert, Scott, & Wilkinson, 1985; Robeck & Wilson, 1974).

Reading Test

A reading test is a public means of collecting and quantifying information concerning the extent to which a child has mastered a given skill in, or acquired a particular attitude toward, some aspect of reading. It is a means of determining with some precision the extent to which a child has approached one or more goals of a school's reading instruction program. Such an instrument may measure attainments in or attitudes toward reading (Pumfrey, 1976, 1977).

Attitude

Attitude refers to a learned predisposition to react in a consistent, emotionally toned way toward a particular person, idea, or thing. Attitudes related to reading consist of a system of feelings toward reading related to print which causes the learner to approach or avoid a reading situation (Alexander & Filler, 1976; Wilson, Robeck, & Michael, 1969).

Attitude Test

An attitude test is a scale designed to determine an individual's set or predisposition to react in a positive or negative manner toward a person, object, idea, happening, or institution (Wilson, Robeck, & Michael, 1969).

Achievement

Achievement refers to performance on a given test at a given point in time (Wilson, Robeck, & Michael, 1969).

Achievement Test

An achievement test is a test requiring the examinee to demonstrate the extent to which he/she has attained certain objectives in a more or less formalized learning experience, as manifested by his/her responses to a number of questions that supposedly represent a behavioral sampling of the objectives (Wilson, Robeck, & Michael, 1969).

Percentile Rank

A percentile rank indicates the relative standing of a pupil in comparison with other pupils. The percentile rank tells the percent of pupils in a particular norm group who obtain lower scores (Hieronymus & Hoover, 1986).

Chapter 1 Reading Program

Chapter 1 under the Education Consolidated and Improvement Act of 1981 provides financial assistance to local school districts for planning and operating a special program for educationally disadvantaged children. Programs funded under this legislation have come to be know as Chapter 1. Special reading instruction is provided for students identified as reading 1 or more years below grade level (Plunkett, 1985). Students identified in this study as Chapter 1 program participants are those students who were ever involved in the program for at least 1 year.

Talented and Gifted Program

Students participating in the local talented and gifted (TAG) program were formally identified in Grades 3, 4, or 5 as possessing a combination of intellectual thinking abilities, creative thinking abilities, and motivation to learn. The students were identified by classroom teachers, building principal, and TAG coordinator. During the year, the students participated in a pull-out resource room program 1 day per week. Students identified in this study as talented and gifted participants were those students who were ever involved in the program for at least 1 year.

Organization of the Study

Chapter I presents the introduction, statement of the problem, purpose of the study, limitations, delimitations, assumptions, definition of terms, and organization of the study. Chapter II is a review of related literature. Chapter III describes the methods and procedures followed in the study, the population of the study, the instruments selected for use in the study, the procedures with which the data were analyzed, and a summary. Chapter IV is a summarization and analysis of data and a discussion of major findings from the research. In Chapter V, the study is summarized with conclusions and implications discussed.

CHAPTER II

REVIEW OF RELATED LITERATURE

Attitudes about reading exist within the individual and cannot be seen or observed in direct fashion. Attitudes, therefore, cannot be easily measured (Teale, 1983). The presence of attitudes toward reading, however, can be inferred through providing appropriate verbal and nonverbal stimuli from various behavioral samples (Summers, 1977).

Information in this chapter will include a historical perspective of the development and use of reading attitude measures. Second, research concerning the relationship between reading attitudes and reading achievement will be reviewed. Research concerning variables associated with attitudes will be discussed. These variables include the gender of the student, participation in special programs, and the student's grade in school. The final section of this chapter contains implications for teachers and a summary of this chapter.

Attitude Scales

A review of the related literature revealed that the study of attitudes has occupied a central place in social psychology during the past 50 years. The study of attitudes toward school subjects, specifically reading, however, was hindered until recently because few adequately standardized tools for measuring attitude had been developed. The research and development of attitudinal measures in reading has been scarce compared to the other areas of reading research. Despite the fact that much has been written about the development of positive attitudes toward reading, little empirical

research has been done either to determine how effective development of positive reading attitudes is best accomplished or to assess the extent to which this frequently stated objective has been met (Cramer, 1975). Yet, the desirability of developing positive attitudes towards reading is obvious.

Attitude scales that were available were typically constructed for use in research or evaluation projects where the scale was not adequately valid to measure attitude. In 1967, Shaw and Wright wrote in the preface to their book that it seemed to them that attitude research has been hindered by the inaccessability of existing attitude scales, resulting in less-than-optimum advances in the scientific analysis of attitudes. They pointed out that most scales of attitude toward school courses were to measure attitudes of college students. They chose to exclude many existing scales from their compilation because of generally poor quality.

Further evidence that instruments had not been developed for the measurement of reading attitudes was gained by an examination of Reading Tests and Reviews (Buros, 1968). No tests in print could be found that were specifically designed to measure reading attitude.

By 1976, Alexander and Filler (1976) listed 18 attitude assessment instruments in their book that measured attitude toward reading. Most of these had appeared since 1970 as only four had pre-1967 dates.

In researching the development of attitudinal measures in reading, Summers (1977) discovered only a small number of studies dealing with instrument development. He stated:

> Although we have shelves full of writing proclaiming the desirability of developing positive attitudes towards books and reading and, to somewhat lesser extent, materials to use in attitude change in reading, with some exceptions few adequately standardized tools for measuring change in attitude have been developed. (p. 140)

Direct measures of attitude are distinguished from indirect measures by the fact that the examiner is clearly aware of what the scale is measuring. An advantage of these measures is that they have relatively high reliability. Direct measures are rather obvious in intent and require little if any inference in interpretation. Raw scores on such measures are directly interpretable: the higher the score, the better the attitude.

One of the most popular and perhaps the best direct method of measuring attitudes was designed by R. S. Likert in 1932. The type has since come to be known as either the "Likert scale" or the "method of summated ratings." Likert scales present the respondent with a series of statements related to a "psychological domain," such as reading, about which people might hold varying opinions. Likert (1932) stated in his paper, " A Technique for the Measurement of Attitudes" that a scale of 15 such statements is sufficient to make the general factor of an attitude stand out clearly. The task of the respondent is to indicate his or her agreement or disagreement with each statement. An individual's score on a scale is the sum of

response values across all items. The total represents a quantification of the person's attitude.

The Thurstone scale is a little more complicated in design than the Likert scale. It may contain a list of 20 to 30 statements relating to reading. The student must select a specified number (such as 6) with which he personally agrees most (Ewing, 1977). In the Thurstone method of scale construction, the statements are scaled for the degree to which the statement expresses a favorable or unfavorable attitude, based upon the consensus of judges. This procedure can be very time-consuming. Once completed, each statement on the scale has a value (between 5 representing good attitude and 1 indicating a poor attitude). The total value of the six items chosen by one person is a reflection of that person's attitude to reading. "The use of Thurstone-type scales in measuring attitude to reading appears to be more limited than the use of Likert-type scales, probably because it is easier to produce the latter and much more time-consuming to produce the former" (Ewing, 1977, p. 9).

A study done by Edwards and Kenney (1946) compared the Likert and Thurstone scales, the two most frequently used scales for attitude measurement. They concluded that the Likert scale is much easier to construct, requiring as little as one-half the time required for the Thurstone scale. They also found the reliability of a Likert scale to be as good or better than that of a Thurstone scale, while scores on scales constructed by either technique were comparable.

Impact of Attitude on Achievement

A child's attitude toward reading, many educators believe, is directly related to his or her achievement scores. Although little empirical evidence exists about the relationship between attitude and reading, Teale (1983) stated, "It is widely accepted that a positive attitude contributes to achievement and should, therefore, be considered when assessing reading" (p. 3). Dulin (1978) noted that a strong, positive attitude assures the growth of strong capabilities and competencies in reading. Other researchers have found positive correlations among students' attitudes toward reading and their achievement in reading (Alexander & Filler, 1976; Fredericks, 1982; Lewis, 1980; Wigfield & Asher, 1984). How children feel about reading seems to be directly related to their success at reading.

Hall (1978) studied the relationship of reading attitudes to achievement and found a significant ($p < .05$) difference between all levels of achievement, with high achievers having significantly more positive attitudes than either middle or low achievers, and middle achievers having significantly more positive attitudes than low achievers. In other words, in this study achievement was related to reading attitudes. It suggests that when achievement improves, attitude often improves, and when attitude improves, achievement often improves. Although the determination of which factor influences the other was not made in the study (a cause/effect relationship was not established), it is clear that reading attitudes are closely related to achievement scores.

Lewis (1980) studied a sample of 149 third-, fourth-, and fifth-grade students. His purpose was to correlate scores from an attitude inventory with scores on the subtest of reading from the Metropolitan Achievement Test. A correlation of .17 ($p < .05$) was found between responses to the reading inventory and scores on the measures of reading achievement, which suggests a low degree of correspondence. Lewis concluded that although attitude toward reading activities, as measured by his self-reporting instrument, had a statistically significant relationship with reading success, the low magnitude of the correlation limits the practical significance of the finding.

A study by Foley, Honeker, and Coriata (1984) revealed that most participating students had a positive attitude toward reading regardless of their achievement level. Sixty seventh- and eighth-grade students participated in the study. The reading comprehension subtest percentiles from the Stanford Achievement Test were used to determine the high, normal, and low ability readers. The Estes Reading Attitude Scale (1971) was used to measure students' attitudes toward reading. The research hypothesis of the study was that attitudes toward reading would vary significantly with achievement. This was not substantiated by the results, which showed that most students had a positive attitude toward reading regardless of their achievement level. Of the 60 participants, only 5 students revealed a negative attitude: 1 student in the low ability group, 2 in the middle ability group, and 2 in the high ability group.

At least one study was directed at the unanswered question of why some students have a good attitude toward reading despite difficulty with it while other students who read very well have little interest in reading. In 1980, Roettger conducted a study of elementary students who were selected because they contradicted the belief that students who read well have positive attitudes, while those who do not read well have negative attitudes. The students in the study had all completed the Estes Attitude Scales. Roettger found that students had different expectations of reading. Students who scored high on the attitude assessment, but had low performance, viewed reading as a tool for survival. Low attitude, but high performance students saw reading as a means of gaining information to help them get good school grades. The commonly held belief that the high achiever has a positive attitude toward reading may be erroneous. It is possible that some of these students may not consider reading as worthwhile as other activities.

Kennedy and Halinski (1975) developed a 70-item Reading Attitude Inventory based on a 4-point Likert technique of scale construction. The instrument was administered to 977 secondary students. Teachers identified the 3 students with the most positive attitude toward reading and the 3 students with the least positive attitude toward reading. Significant (.001) differences were obtained on scaled scores of positive and negative readers as selected by teachers. Females scored significantly higher than males, A students significantly higher than B students, and B students significantly

higher than students with lower grades. Students in the accelerated track scored significantly higher than did students in the regular track. In this study there seemed to be a definite positive relationship between attitudes and achievement.

Attitudes toward reading and reading achievement were significantly correlated at the sixth-grade level, concluded Crews (1978) in a study investigating the attitudes toward reading of middle school students. Attitudes toward reading and reading achievement, however, were not significantly correlated at the seventh and eighth grade levels. Furthermore, Crews noted that sixth-grade students reported significantly more positive attitudes toward reading in terms of reading achievement than seventh- and eighth-grade students.

A significant correlation between reading comprehension and reading attitude was observed in a study conducted by Cramer (1975) on 124 11th- and 12th-grade students at two Wisconsin high schools. The Estes' Reading Attitude Scale was used to assess subjects' attitudes toward reading.

An assessment of students' attitudes toward reading was conducted by Johnson in 1964 with elementary students from four schools in Oregon. In general, there appeared to be a low positive correlation between students' expressed attitudes toward reading and their scores on the reading achievement tests used in this study. Only three of the twelve correlations were large enough to be significant at the .01 level of confidence, and three others were large enough to be significant at the .05 level.

Another study concerned with attitudes and achievement in reading was conducted by Roettger, Szymczuk, and Millard (1979). They found that the correlation between attitude and achievement scores was significant, but low. They concluded that "contrary to the assumption that a positive attitude is essential to learning to read successfully, attitudes cannot be used as a predictor of academic achievement" (p. 140).

Relationships are sometimes found between achievement and attitudes. There is not always a positive correlation between high achievement and favorable attitudes, concluded Alexander and Filler (1976).

Data taken from a review of 110 research studies of student attitudes toward reading published between 1900 and 1977 (Davis, 1978) concluded that good comprehension is related to good (positive) attitudes toward reading. Poor comprehension is related to poor attitudes. The review also found that attitudes affect achievement. Attitudes become more positive with improved achievement. Attitudes are more related to achievement than to ability as determined by IQ scores.

The results of the studies reviewed point out the inconsistent relationship between attitudes and achievement. These studies all illustrate a frustrating view for the reading person. In the words of Saks (1981) "High achievers can have either high or low attitudes, and those with high attitudes have high or low achievement" (p. 15-16).

Gender

Research done on the effect of gender differences in reading achievement and attitudes toward reading has resulted in mixed findings. Females have generally been recognized by reading experts as being more interested in reading than males and as having a more positive attitude toward reading (Arlin, 1976; Askov & Fischbach, 1973; Kennedy & Halinski, 1975; Wallbrown, Levine, & Engin, 1981). Alexander and Filler (1976) reviewed attitude differences between gender groups and recommended that teachers not assume girls have more positive attitudes than boys.

In a recent study of gender differences, Parker and Paradis (1986) studied 134 children in Grades 1 through 6. They used the Heathington Scales to measure student attitudes toward reading. No significant differences were observed for attitude scores in Grades 1, 2, and 3. A significant difference, however, was observed for attitude scores in Grades 4, 5, and 6 ($p < .05$). Throughout Grades 1 through 6, the attitude score for girls tended to be more positive than for boys. The authors stressed that caution should be exercised in overgeneralizing from the findings of the study, however, because the mean differences between girls and boys was approximately four raw points in the primary grades and six points in the intermediate grades.

A study involving 124 11th- and 12th-grade Wisconsin students resulted in a similar finding. Cramer (1975) noted that female subjects scored slightly higher on a test of their attitude toward

reading (Estes Reading Attitude Scale). The differences, however, were not at a significant level as the mean for the females was 77.68 versus a mean of 74.34 for the males.

In a 1961 study, Gates studied gender differences in reading ability of 13,114 U.S. elementary pupils--6,646 boys and 6,458 girls in Grades 2 through 8. Children in the study took the Gates Reading Survey tests of speed of reading, reading vocabulary, and level of comprehension. Even in Grade 2, for which the tests were said to be so difficult they are not recommended, the girls obtained higher scores on all three tests. The average for all grades, excluding Grade 2, on all tests, showed a superiority of slightly less than 0.2 standard deviation for the girls. Gates concluded that the study strongly confirmed that, on the average, females significantly outscored males on reading comprehension and vocabulary.

A study of 312 fifth- and sixth-grade students from a rural northeastern Ohio school system provided information about gender differences in students' perceptions of their attitudes towards reading (Wallbrown, Levine, & Engin, 1981). The study found that boys are more likely to perceive themselves as having difficulty in reading and acknowledge the existence of this problem in response to attitudinal-type questions. The mean difference between the boys and girls was statistically significant at the .0001 level. Girls perceived themselves as receiving more reinforcement from their friends, parents, and teachers in their reading than boys did (.007 level). Girls also perceived themselves as valuing reading activities

for their intrinsic worth as a source of information, learning, and emotional satisfaction to a greater degree than did boys (.001 level). The study also indicated a substantial tendency for boys to become more emotionally upset or experience more unpleasant physical sensations or feelings when reading or thinking about reading than girls (.002 level).

In four elementary schools in Eugene, Oregon, Johnson assessed students' attitudes toward reading using An Inventory of Reading Attitude in 1964. Differences between the attitudes toward reading of boys and girls were tested for significance through the use of the T-test. The results of Johnson's study showed the mean differences in attitudes toward reading were higher for girls than for boys. Johnson concluded that girls in this study indicated slightly better attitudes toward reading than boys.

When studying the attitudes toward reading of middle school students, Crews (1978) concluded that female students reported significantly more positive attitudes toward reading than male students. No significant correlations, however, were found between attitudes toward reading and reading achievement in terms of the sex of the student. Furthermore, Crews found no significant differences in attitudes toward reading of females and males in terms of reading achievement. The Estes Attitude Scales was used as the measure of attitudes toward reading. Analysis of variance and Pearson product-moment correlations were used to determine significance. The data was tested for significance at the .05 and .01 levels of confidence.

Davis conducted a study (1978), one of the purposes of which was to identify the American journal published research from 1900 through 1977 that had been conducted on student attitudes toward reading. One of her major findings was that some research studies reported that girls had more positive attitudes toward reading, some studies reported that boys had more positive attitudes, and some studies reported no difference in positive/negative attitudes and the sex of the participant.

The premise that almost everyone assumes that girls like to read more than boys do led Hall (1978) to conduct a study of over 300 pupils in both urban and rural Tennessee schools to determine the relationships and attitudes toward reading of both boys and girls. The study revealed data which pointed out that sex is not a determiner of more positive or more negative reading attitudes. Females did not always have better attitudes toward reading than males. Hall concluded that teachers must teach reading skills and work to improve students' attitudes toward reading without allowing bias toward sex influence their attitudes toward students.

Hammons, Knafle, Pascarella, and Cramer (1981) undertook two studies to compare reading attitudes according to student achievement and socioeconomic levels. In the first, study reading attitudes of 320 students, half from an inner city school and half from a suburban school, were measured by the Estes Reading Attitude Scales and the results were compared according to grade, school, achievement level (low or average), and sex. In the second study, students who had

indicated a positive attitude toward reading in the first investigation were given a polygraph test to determine if they had expressed their true attitudes. The results of the first study revealed that average achieving students and those in the inner city school had more positive attitudes toward reading than their peers. No effects were found for either grade placement or sex of the student. The results of the second study indicated that students in the low-achieving group overestimated their attitude more than the regular group.

There are a few beliefs, held by some teachers, that are sometimes but not always supported by research and may be harmful since teacher expectations may affect outcomes. These include the belief that girls have more positive attitudes toward reading than boys. Alexander (1983) cautioned teachers not to make assumptions about the effects that sex may have on attitudes until they had assessed the specific attitudes of the students in their classrooms as the findings may be different from what was expected.

Special Populations of Students

There have been several studies to investigate the attitudes toward reading of special populations of students. The results are not definitive. Lehr (1982) noted that findings concerning the relationship of specific teaching techniques to attitude formation are inconclusive.

Results of a descriptive and analytic study of compensatory reading programs (any special reading instruction provided for

students who were reading below grade level) in Grades 2, 4, and 6 in U.S. public schools were summarized by Waller, Trismen, and Wilder in 1977. They examined the relationships among attitudes toward reading, participation in compensatory reading programs, and reading achievement. Overall, students in compensatory programs showed greater attitude gains than students not participating in such programs, even though in many cases the opposite was true for gains in reading achievement. They also concluded that the amount of past instruction in compensatory programs had no effect on attitude gains.

Another study investigating the attitudes of normal and disabled readers toward reading was conducted by Lohman in 1983. The students included 40 normal readers and 40 disabled readers from Grades 3 through 6. Comprehension subtest scores from a standardized reading achievement test were used to categorize students as normal or disabled readers. The Estes Attitude Scale was used to determine positive or negative readers. The results indicated that there was a significant difference in attitudes toward reading among the normal and disabled readers. Lohman concluded that there were a greater number of negative readers and less positive readers among the disabled readers group than among the normal readers group.

Gifted readers have recently been investigated concerning their attitudes toward reading. Cooter and Alexander (1984) contended that in addition to exploring the cognitive aspects of reading for the gifted students, the affective domain is an equally important dimension and it must also receive attention. Cooter and Alexander,

however, warned that research in the area of attitudes of gifted learners is rather sparse.

Gifted students in general have a highly positive attitude toward reading concluded Goostree after studying the reading interests and attitudes of fourth-, fifth-, and sixth-grade gifted students in Missouri in 1981. In this study, gifted girls consistently ranked higher in their attitude toward reading than boys.

Another study conducted by Anderson, Tollefson, and Gilbert (1985) investigated the attitude toward reading and the self-reported reading behaviors of 276 gifted students in Grades 1 through 12. The major purpose of the study was to compare, in a cross-sectional design, gifted students' attitudes toward reading. The authors stated that "while inventories assessing attitudes toward reading are available commercially, none is designed for use with students in grades one through twelve" (p. 186). The students completed a reading questionnaire, developed specifically for this study by the authors, consisting of 11 attitudinal items and using a 5-point Likert scale. The authors concluded that significant sex and grade level differences in attitudes toward reading were observed. Females as a group reported more positive attitudes toward reading than did males. The general trend across age levels was for primary students to have the most positive attitudes and for each advancing grade level group to have less positive mean attitudes.

After studying another gifted population, Bobel (1981) reported consistently positive attitudes toward reading. "I feel happy when

I'm reading what I want " (96%); "I enjoy reading at home" (84%); "Some time should be used for reading during summer vacation" (87%) were some specific examples given (p. 21).

Another study investigating reading attitude and interests of gifted and talented students was conducted by Link in 1984. Thirty students in fourth through ninth grade in north central Texas were involved. The data was gathered through the use of a 20-item questionnaire, which included statements with Likert-type scale responses. One of the major findings of this study was that gifted and talented students have a very positive attitude toward reading. These attitudes appeared to be observable in their reading habits at home and school concluded Link (1984).

The most valid generalization that can be made is that the effects of instructional practices and special programs can but do not necessarily affect attitudes (Squire, 1969). Alexander and Filler (1976) cautioned that there may be interactions occurring with other factors, such as the teacher and the classroom atmosphere. They further stated that the teacher and his/her enthusiasm for a given practice or program may often be the key ingredient in any attitude change that occurs.

Students' Grade Placement Level in School

Twelfth-grade students scored higher on a test assessing their attitude toward reading than did the 11th-grade students in a study of 11th- and 12th- grade students in Wisconsin conducted by Cramer in 1975. A mean of 75.70 for the 11th graders was computed compared to a

mean of 76.66 for the 12th graders. The difference between scores, however, was not at a significant level. There were 74 11th-grade students and 50 12th-grade students participating in the study.

Crews (1978) designed a study to investigate the attitudes toward reading of middle school students. He found that sixth-grade students reported significantly more positive attitudes toward reading than seventh- or eighth-grade students.

One of the conclusions made by Davis (1978) after reviewing 110 research articles concerning students' attitude toward reading was that attitudes toward reading become less positive with an increase in the age of students. This is in contrast to the findings of the study conducted by Askov and Fischbach in 1973 which investigated the attitudes of 94 first- and third-grade students. They concluded that grade level was not significantly related to attitude.

Studies have shown that preschoolers have positive attitudes toward reading, but that negative attitudes toward reading develop in the primary grades (Shapiro, 1979). A number of opinions have been offered to account for such changes, but there is little evidence of the reasons why these attitudes become more negative. Heathington and Alexander (1984) offered, as one of the reasons, the fact that primary-grade teachers spend little class time attempting to develop positive attitudes toward reading.

Low correlations between first-grade students' scores from a reading attitude inventory and composite scores on a reading achievement test were found in a study conducted by Swanson (1982).

The study involved 116 rural first-grade students in Georgia. In citing the low but stable correlations, the author concluded that younger students usually have relatively positive attitudes in the initial stages of learning to read. "It is not until learning to read becomes more of a task that the negative attitudes are established," stated Swanson (1982, p. 1304). This observation has been supported by findings in studies by Johnson (1964), Arlin (1976), and Parker (1978). A review of the findings of the 1979-80 reading and literature assessment in the U.S. conducted by the National Assessment of Educational Progress (1981) also lead to the conclusion that students liked reading less as they got older.

Johnson (1964) assessed students' attitudes toward reading in four elementary schools in Oregon. Two-way analysis of variance was used to determine whether there were significant differences in attitudes of children toward reading between grade levels and between schools. The analysis of variance showed significant differences in attitudes toward reading between the different grade levels. She concluded that children in the lower grades indicated better attitudes toward reading than children in each successively higher grade tested.

Attitude Goals in School Reading Programs

Many professional educators would agree that the "ultimate goal of reading instruction is to establish permanent interest in reading" (Witty, 1971, p. 56). An essential goal of reading programs is to effectively blend students and books together so that students will select reading as an independent, diversional activity (Wendelin &

Zinck, 1983). Smith (1982) has stated that among educators' highest goals for reading ought to be "a strengthened personal commitment to read" (p. 362).

Since students' attitudes often determine whether they develop reading ability, misconceptions and negative feelings about reading rarely lead to reading competence. Consequently, stated Duffy and Roehler (1989), attitude goals are the foundation to a good school reading program. "A reading program, to be successful, must foster learners who read, and who feel good about themselves and about their ability to use reading to satisfy some felt personal or informational need," Alexander emphasized (1983, p. 357).

Certainly, one of the objectives of reading instruction most often repeated is that students should develop lifetime reading habits. Estes (1972) felt that if these lifetime reading habits were developed, it was because the students develop a good attitude toward reading which accompanied the skills necessary for reading.

When teachers and administrators wrote goals for a language arts curriculum to be used in Area Education Agency 7 in Iowa (1988), they earmarked the first of 10 goals to be that students would develop a positive attitude toward reading that would enable them to become life-long readers. Although the instructional time and effort spent on developing attitude goals lessens through the grades, the emphasis nevertheless remains a permanent part of the reading curriculum.

Alexander (1979) viewed a successful reading program as one that fosters students who can and do read. Two major objectives of a

reading program proposed by Alexander are "the development and maintenance of favorable attitudes toward reading and the fostering of a lasting interest in reading for personal and informational reasons" (p. 315). Epstein (1980) agreeing with Alexander, emphasized that "the ultimate success of a reading program's effectiveness should be judged not solely on the basis of how well students learn to read but also in terms of whether they do in fact read" (p. 5).

Usually weak student attitudes in reading are tied to the misconceptions and negative feelings that students hold about reading. If teachers could change the misconceptions and negative feelings, their students' attitudes most likely would change. Duffy and Roehler (1989) emphasized how crucial it is that teachers be as systematic and dedicated to developing attitude goals as they are to the other aspects of reading. In addressing this issue to teachers they stated, "At any stage of developmental reading growth, you must include attitude development as an integral part of your reading curriculum" (p. 84). Lohman (1983) suggested that the content and implementation of school curriculums may need to be adjusted in order to instill a positive feeling in the students toward the worthwhileness of reading.

Impact of Teachers on Attitude

Teachers often have a major impact on their students' attitudes toward reading. McMillen and Sloan (1980) stated whether teachers are seen as readers or nonreaders, their attitudes toward reading, and their attitudes toward the students themselves will influence students' reading habits and attitudes.

"There is little doubt that the teacher is often the most significant force in the development of positive attitudes. Frequently he/she is more important than the techniques, practices, and materials used," emphasized Alexander (1983, p. 368-369). Lohman (1983) stated that the child's personal attitudes and beliefs about reading, positive or negative in nature, rely on how the teacher perceives reading and portrays it to the students. Therefore, it is extremely important that the teacher be a good model for his/her students. Teachers play a vital role in motivating and guiding students to reach optimum success in reading. The teacher's nonverbal behaviors, the kind of classroom atmosphere he/she provides, and his/her attitudes toward reading and toward the students as readers are also powerful factors affecting student attitudes. The teacher who successfully promotes books is one who clearly enjoys reading and who has read books for children as well as for adults (Link, 1984).

If attitude, the first prerequisite and most central component in learning to read, is not positive, then it is likely that the other components (attitude, motivation, attention, comprehension, and acceptance) will not occur at all or will occur haphazardly. "The role of the teacher, then," declared Kolker (1983), "is to foster positive attitudes so that children will want to read" (p. 6). Agin (1975), in her summary of reading research, concluded from experts in the field that the attitude of the teacher is the main ingredient in encouraging children to read.

Levine and Singleton (1981) suggested that formalized measures derived from attitudinal scales be augmented with less formal assessments of students' attitudes and feelings by teachers and by the students themselves. Informal methods can meaningfully extend information gathered with reading scales which have been tested for construct validity and reliability (Vaughn, 1980).

Educational Implications

Implications for education can be made from this review of related literature. Educators need to be informed that the development and measurement of reading attitudes is more complex than assessment of students' cognitive abilities. Teachers often are unaware of instruments that measure attitudes toward reading (Heathington & Alexander, 1984). Information on assessing affective aspects of reading needs to be presented to teachers. Perhaps teacher training programs in colleges need to focus not only on cognitive aspects, but also on assessment of attitudes and their important role in the reading program.

A reading attitude assessment of an entire class can be used to determine how students feel about reading prior to instruction. When teachers compare the attitude scores to achievement scores of their students they may be able to provide better opportunities for students to be successful in the school reading program. Knowing which students have a low attitude and high achievement may help teachers and librarians to focus on finding the right books to stimulate more reading. It is also important for the students with high attitudes

despite low achievement to have time each day to read their own books even if they have not completed all their work.

The measurement of student attitudes toward reading can be significant to the total school testing program. A reading attitude inventory is suitable and practical for the public school testing environment because it is easy to administer and score. The use of such an instrument could lead to an examination of the total school reading program, both free and required reading, by providing insights into student attitudes toward reading that may affect the development of lifetime reading interests and habits (Kennedy & Halinski, 1975).

Summary

There is little disagreement regarding the importance of attitudes in fostering growth in reading. This aspect of the reading process, however, has not always received the research attention it deserves.

The research and development of attitudinal measures in reading has been scarce compared to other areas of reading research. The use of a Likert scale in which the respondent indicates his/her agreement or disagreement with as few as 15 statements is a popular and efficient method of directly assessing a person's attitude. Another direct measure of attitude assessment is the use of the Thurstone scale, although it is much more time-consuming.

Although little empirical evidence exists about the relationship between attitude and reading, it is widely accepted by educators that a positive attitude contributes to achievement. In the research

studies reviewed by this author, most of the studies showed a low positive correlation among students' attitudes toward reading and their achievement in reading. In one study (Foley, Honeker, & Crociata, 1984), however, most students had a positive attitude toward reading regardless of their achievement level. In two studies (Johnson, 1964; Roettger, Szymczuk, & Millard, 1979), there appeared to be a low positive correlation between students' expressed attitudes toward reading and their scores on the reading achievement tests. Although relationships are sometimes found between achievement and attitude, there is not always a positive correlation between high achievement and favorable attitudes. The commonly held belief that the high achiever has a positive attitude toward reading may be erroneous.

Research done on the effect of gender differences in reading achievement and attitude toward reading has resulted in mixed findings. Educators long have recognized females as having a more positive attitude toward reading and this belief was substantiated by the majority of the research reviewed by the author. In several of the studies (Cramer, 1975; Johnson, 1964; Parker & Paradis, 1986), however, the authors stressed that caution should be exercised in overgeneralizing from the findings of the study as the females had indicated only slightly better attitudes toward reading than males. In two studies (Hall, 1978; Hammons, Knafle, Pascarella, & Cramer, 1981), no effects were found for the sex of the students. The authors concluded that sex was not a determiner of more positive or more

negative reading attitudes. One of the major findings of Davis (1978), after reviewing 110 research articles on attitudes toward reading, was that some research studies reported that girls had more positive attitudes, some studies reported that boys had more positive attitudes, and some studies reported no difference in attitudes and the sex of the student.

Studies investigating the attitudes of students toward reading when special programs are involved have resulted in inconclusive evidence. In one study (Waller, Trismen, & Wilder, 1977), students reading below grade level and participating in compensatory reading programs showed greater attitude gains than students not participating in such programs. Another study (Lohman, 1983) concluded that there were a greater number of negative readers and less positive readers among the disabled readers group than among the normal readers group. Gifted students had a positive attitude toward reading in the research reviewed by the author (Anderson, Tollefson, & Gilbert, 1985; Bobel, 1981; Goostree, 1981; Link, 1984).

Significant grade-level differences in students' attitude toward reading were found in the review of the research. In one study (Crews, 1978) sixth-grade students had more positive attitudes than seventh- or eighth-grade students. In another study (Cramer, 1975), however, 12th-grade students scored higher on an attitude assessment than the 11th-grade students. Johnson (1964) and Davis (1978) concluded that attitudes became less positive with an increase in the age of students. This was in contrast to the findings of Askov and

Fischbach (1973), who concluded that grade level was not significantly related to attitude.

An objective of most school reading programs is that students become lifetime readers. Several reading experts (Alexander, 1979; Epstein, 1980; Estes, 1972) noted that a positive attitude toward reading is essential if lifetime reading habits are developed. It was further emphasized that teachers must develop both affective and cognitive goals in the reading programs.

The review of the literature revealed many instances where the role of the teacher as a model was emphasized. The teacher must be seen as having a positive attitude toward reading and viewed as being a lifetime reader.

Educators need to be informed of methods that assess students' attitude toward reading. Measurement of student attitudes toward reading should become a part of the total school testing program. A reading attitude inventory is a practical and suitable method for public school testing.

Valid generalizations from other available data are difficult to make since the number of studies is limited and the findings are, at times, contradictory. For example, high achievement is sometimes, but not always, found present with a positive attitude toward reading. In addition, it appears that certain special programs can, but do not necessarily, contribute to more favorable attitudes. The belief that girls will have more favorable attitudes toward reading than boys is not necessarily valid.

The results of many of the studies were based on correlational data which does not suggest a cause or effect relationship. It merely suggests that one variable has been found present with or absent from another variable. Also, the variables do not necessarily function independently, but their interrelationships have not been established. There is still a need for investigation in areas dealing with the variables associated with attitudes toward reading. One such area of need is the relationship between attitudes toward reading and achievement in reading. Therefore, this study is designed to investigate the developmental relationships between attitude of students toward reading and their reading achievement in Grades 1 through 8.

CHAPTER III

METHOD AND PROCEDURES

The purpose of this study was to investigate the developmental relationships between the attitude of students toward reading and their reading achievement. The content of this chapter includes: (a) identification of the population of the study; (b) description of the instruments used; (c) procedures used in collection of the data; and, (d) a summary.

Population of the Study

The population of this study consisted of those students in first through eighth grade who were enrolled in the Independence Community School District in the spring of 1988. The Independence School District in northeast Iowa is composed of students from a lower middle-class, white farming community of approximately 6,000 people in and around Independence, Iowa. The number of students included in this study at each grade level is presented in Table 1. The first- through fifth-grade students were from three elementary buildings while the sixth-, seventh-, and eighth-grade students were from one middle school building.

Instruments

The instrument used to measure the attitudes of students toward reading was the elementary form of the Estes Reading Attitude Scale for Grades 1 through 5 and the secondary form for Grades 6 through 8 (Estes, Estes, Richards, & Roettger, 1981) (see Appendix A).

Table 1

Number of Students Completing Tests of Attitude and Achievement in Grades 1-8 and in Special Populations

	Total	Chapter 1	TAG
Grade 1	99	22	no program
Grade 2	124	29	no program
Grade 3	112	27	5
Grade 4	91	28	13
Grade 5	123	30	18
Grade 6	99	25	14
Grade 7	114	35	4
Grade 8	114	38	11
Total	876	234	65

The reading comprehension subtest of the Iowa Tests of Basic Skills, form G, was used to measure reading achievement of students in Grades 1 through 8 (Hieronymus & Hoover, 1986).

The Estes Reading Attitude Scale consists of a 14-item Likert-type scale at the elementary level and a 15-item Likert-type scale at the secondary level. This scale was constructed so that no reading is required of children who take the elementary form. The authors claim that the item content is easily understood by most elementary

students. The items on the secondary form have readability levels of sixth-grade, and the content is appropriate for most students in Grades 7 through 12.

Some of the statements are worded in a negative manner, while others are of a positive nature. Examples of the questions are: "Reading is for learning but not for enjoyment," "Books are a bore," and "Books make good presents." In completing this test students respond on an answer sheet which uses a 5-point Likert-type scale with choices ranging from "Strongly Agree" to "Strongly Disagree" on the secondary form and a 3-point Likert-type scale with choices of "Agree," "Can't Decide," and "Disagree" on the elementary form. There is a balance of positive and negative items on the scale. The measure of the student's attitude is then the sum of all the assigned values corresponding to his/her responses. A table provided in the manual supplies norms for raw scores in either percentile or T-scores.

Student achievement was measured by the reading comprehension subtest of the Iowa Tests of Basic Skills (ITBS). Students in Grade 1 were administered level 7 with each succeeding grade taking the next successive level through Grade 8 taking level 14.

The ITBS batteries provide for the comprehensive measurement of growth in the fundamental skills--reading being one of the areas. The ITBS batteries reflect the continuous nature of skills development. Levels are constructed in such a manner as to reflect progress in a continuous developmental sequence. Each test is a single wide-range

test. Students start and stop at various places in the tests, depending on the level assigned.

The reading comprehension subtest consists of selections varying in length from a few sentences to a full page. According to the manual, the items in all levels of the ITBS reading tests place a premium on understanding and drawing inferences from the reading selections.

Raw scores on the ITBS convert to either developmental grade or age equivalent scores or percentile ranks, normal curve equivalents, or stanines. Percentile rank scores were used for the analysis in this study.

The format of the Likert-type items on the Estes Reading Attitude Scales requires that the student agree or disagree with each of a series of evaluative statements on a 3- or 5-point scale. The procedure is probably the most efficient "paper and pencil" method for assessing attitudes, providing the most reliable measure with the least items (Seiler & Hough, 1970).

Summers (1976) claimed that establishing validity using predictive, content, concurrent, and construct indices is a persistent problem in reading attitude research. He stated, however, that one notable good exemplar was the instrument by Estes which was, technically and conceptually, the best-developed reading attitude scale to date. Two validation studies carried out on the Estes scale determined that the test was a suitable instrument for the measurement

of positive attitudes towards books and reading (Dulin & Chester, 1974; Estes & Johnstone, 1974).

Plake, Piersel, Harding, and Reynolds (1982) conducted a study to assess the relevance and validity of this scale with Mexican-American and Anglo students. They concluded that the use of this measure of reading attitude, with Mexican-American and Anglo ethnic groups, does not lead to substantial bias in test score interpretation. In other words, responses on the test as a whole can be judged to be valid.

The manual for the Estes Attitude Scales reports alpha reliabilities for the reading scale for two independent samples in the state of Virginia (one urban and one rural) of .87 and .93. A replication study by Richards and Clark (1983) supported the factor-analytic integrity of the Estes Reading Subscale. Estimates of internal consistency were similar to those reported in the manual. Criteria for establishing the convergent and discriminant validity of the secondary form include self-ratings of liking, peer nominations, teacher rankings, course grades, achievement scores, and records of extracurricular activities. Reviews by Payne (1977) and Miller (1985) reported that the Estes Scales appear to have been competently constructed and that correlational evidence satisfies conditions favoring both convergent and discriminant validity of individual interest scales.

Airasian (1985) found that the reliabilities of the Iowa Tests of Basic Skills are high and contain content that is generally

representative of school curricula in Grades 3 to 9. The sample used for the norms was sufficiently large and representative, and Airasian concluded that the ITBS is one of the best standardized tests available for measuring achievement. Nitko (1985) stated that the developers of the ITBS set an industry standard for their use of a well-documented ongoing empirical research program that supports both important test development decisions and the validity of the basic skills interpretations of the test results.

Procedures

Approval by the school superintendent, building principals, and teachers of students involved in this study was received before any data were gathered. The researcher met with all classroom teachers to explain the purpose of the research, the procedures for distributing and administering the attitude scale, and the amount of time it was expected to take.

The Estes Reading Attitude Scale was used in this study to investigate attitudes that the students had toward reading. It was administered to all students in Grades 1 through 8 by their regular classroom teacher during the spring of 1988, approximately in the same month as the administration of the Iowa Tests of Basic Skills. The purpose of the test was explained to the students and they were told to answer the items as honestly as possible. Teachers who administered the elementary form read the questions aloud while the student marked his/her response on the answer sheet. Students taking the secondary form read the items silently and then responded to the

5-point choices. Answers were hand-scored by the researcher and raw scores were converted to percentile rank scores for use in the analysis.

The reading comprehension subtest scores from the Iowa Tests of Basic Skills were collected from the spring (April-May) 1988 testing results of the 876 students in Grades 1 through 8. Again, all students in the district (except for special education students) were administered this test by their classroom teachers. The tests were scored by an out-of-district agency. The percentile rank scores for each of the 876 students for both instruments was entered for computer analysis.

Summary

The information derived from the reading attitude instrument and reading achievement instrument was compiled. Percentile rank scores were used in the computer analysis to determine the mean percentile rank performance of reading attitude and reading achievement of students in Grades 1 through 8 by grade level of males and females, of students who participated in Chapter 1 programs, and of students who participated in the talented and gifted program. In addition, Pearson product moment coefficients of correlation were determined between reading achievement scores and attitude toward reading scores for students in Grades 1 through 8 and for each variable. The results of the findings will be presented and analyzed in the following chapter.

CHAPTER IV

RESULTS AND DISCUSSION

The general question underlying this study was: What is the relationship between attitude toward reading, as measured by the Estes Attitude Scale. and reading achievement, as measured by the Iowa Tests of Basic Skills reading subtest of students in Grades 1 through 8 in the Independence (Iowa) Community School District? To answer this question, scores of the students on the two instruments were analyzed to determine the mean percentile rank performance at each grade level and within the special population groups.

Table 2 presents these mean percentile scores at each grade level. This table reveals that students scored at a lower level in Grade 1 (mean score of 52nd percentile), but then maintained an average score between the 57th and 66th percentile on the reading comprehension assessment. Students' scores on the attitude toward reading assessment ranged from a high of 58 mean percentile rank score in Grade 2 to a low of 42 mean percentile rank score in Grade 8. All scores were above the national average expected score of 50 except at Grade 8. In examining students' scores on the achievement test and the attitude test it can be determined that the differences are greater in the upper four grades than in the lower four grades. With the exception of Grade 1, the achievement test mean percentile rank score was always higher than the mean percentile rank score on the reading attitude assessment for each grade level. The greatest difference between the two scores occurred at Grade 8.

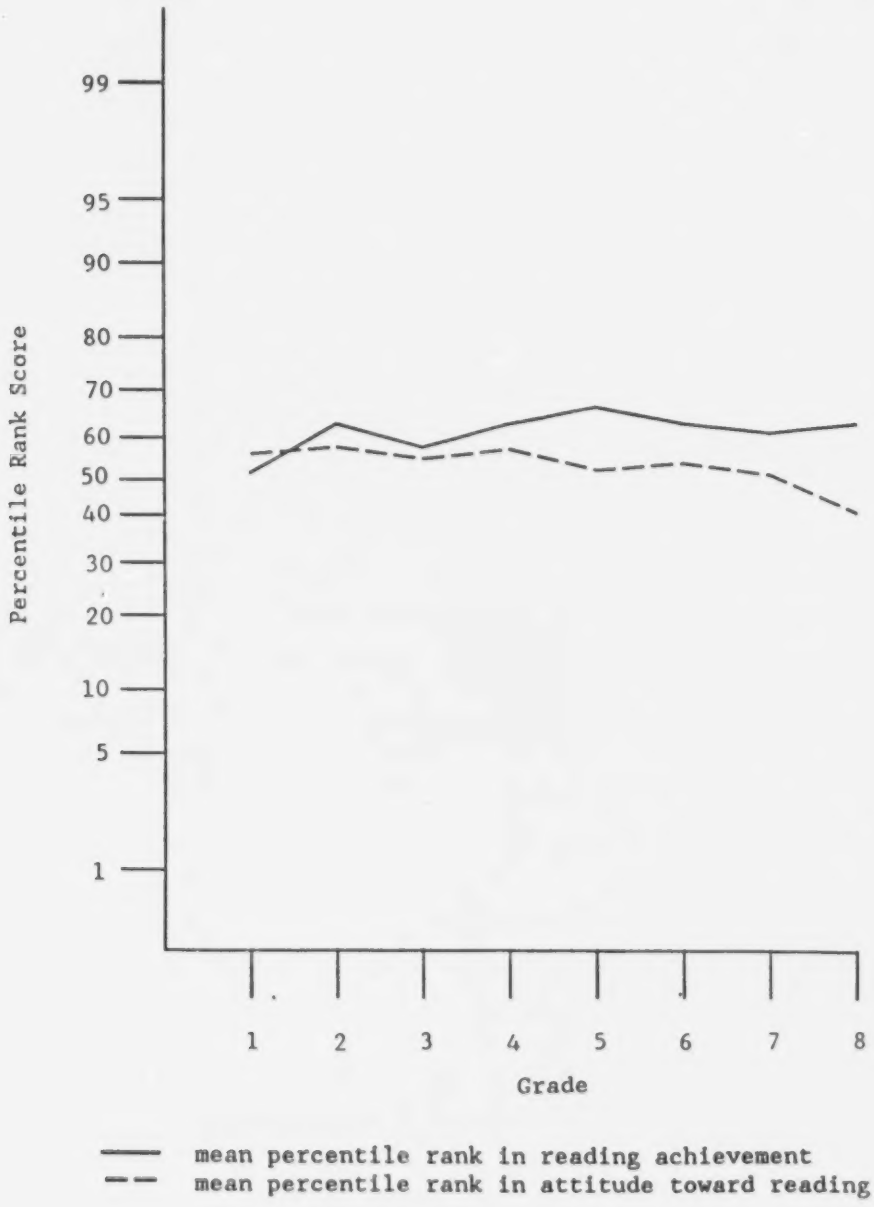
Table 2

Mean Percentile Rank Performance on Reading Achievement and Attitude Tests at Eight Grade Levels

		Reading Achievement Test		Reading Attitude Tests	
	N	X	SD	X	SD
Grade 1	99	52	30	56	31
Grade 2	124	63	27	58	26
Grade 3	112	58	24	55	28
Grade 4	91	63	22	57	28
Grade 5	123	66	23	52	27
Grade 6	99	63	27	54	27
Grade 7	114	61	23	51	25
Grade 8	114	63	28	42	29
Total	876	61	26	53	28

To carry out the general question of the study, one specific question was asked: What patterns of attitudes toward reading exist across Grades 1 through 8? On Figure 1 the mean percentile ranks of performance on reading achievement and attitude tests have been plotted for eight grade levels.

Figure 1. Mean Percentile Rank Performance on Reading Achievement and Attitude Tests at Eight Grade Levels.



A visual analysis of the performance on both reading achievement and attitude toward reading tests reveals a similarity between the two scores at all grade levels until Grade 8, where there is a greater discrepancy between the two scores. The mean percentile rank scores on Figure 1 also indicated a slight trend toward a decline in attitude toward reading as compared to reading achievement.

To identify relationships over the grade levels between students' attitude toward reading and reading achievement a correlational analysis was made. Table 3 presents the correlations of reading achievement and attitude. Correlations of reading achievement and attitude toward reading ranged from .1124 in Grade 3 to .3789 in Grade 8. Significant correlations were found at all grade levels except Grade 3. The .05 level of confidence was used. The correlations between students' attitude toward reading and reading achievement were lower in the early grades and higher in the upper grades.

Another specific question that was asked in this study was: Is the pattern of relationship between attitude and reading achievement for male students is the same as for female students? On Figure 2 the mean percentile rank performance on reading achievement and attitude tests for male students and for female students have been plotted. The actual scores appear in Appendix B.

Further information about the relationship between attitude toward reading and reading achievement is revealed in Figure 2. The decline in attitude toward reading in relation to achievement occurs almost completely among male students. The differences in the mean

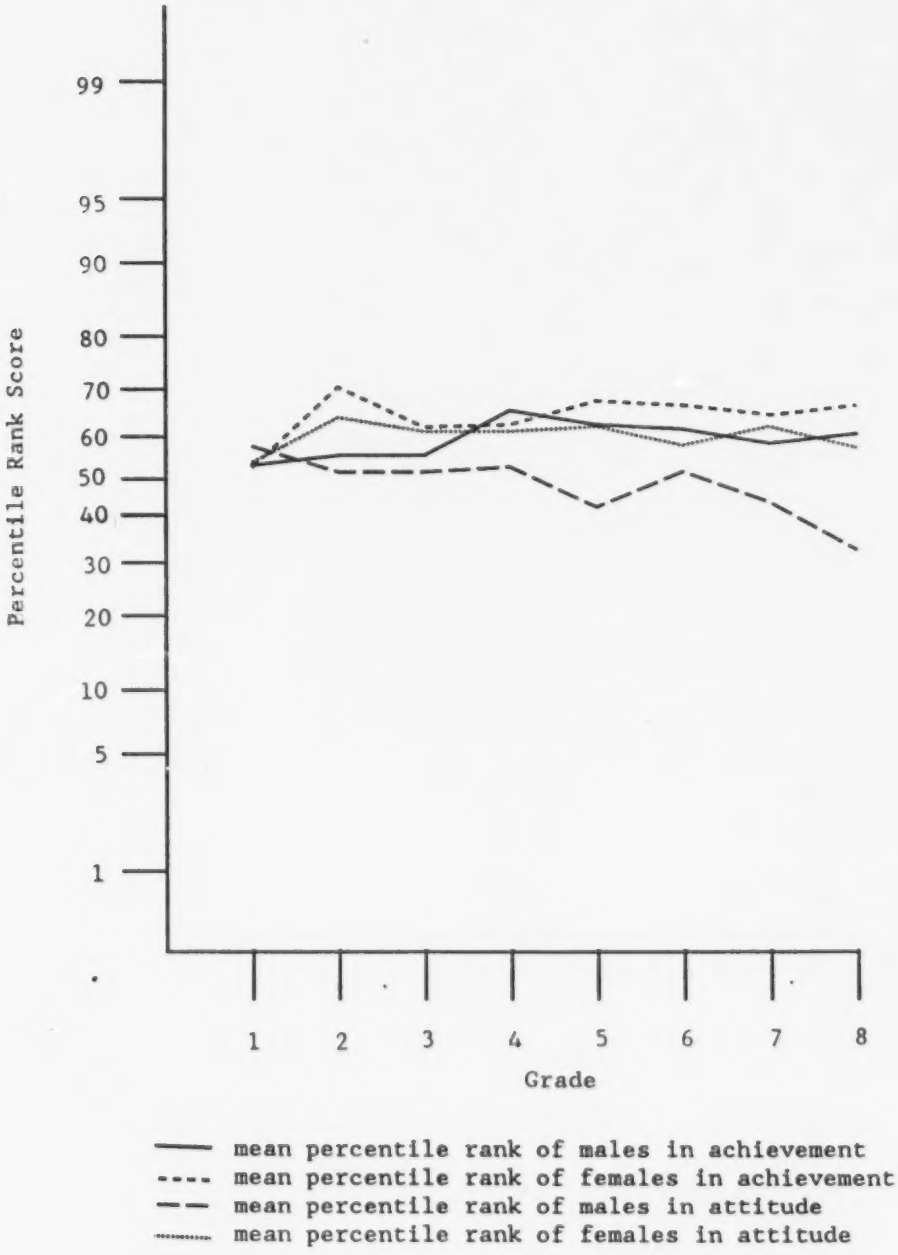
Table 3

Correlations of Reading Achievement and Attitude at Eight Grade Levels and in Special Groups

	N	Correlation	P
Grade 1	99	.1637	.053
Grade 2	124	.1902	.017
Grade 3	112	.1124	.119
Grade 4	91	.3556	.000
Grade 5	123	.3053	.000
Grade 6	99	.3509	.000
Grade 7	114	.2230	.009
Grade 8	114	.3789	.000
All Grades	876	.2430	.000
All Grades - Male	442	.1650	.000
All Grades - Female	434	.3046	.000
Chap. 1 Participants	234	.1424	.015
TAG Participants	65	.2166	.000

percentile ranks of performance plotted on Figure 1 can be explained by the performance of the male students on the attitude toward reading test. The scores of the male students fall below both the attitude toward reading and reading achievement scores of the female students.

Figure 2. Mean Percentile Rank Performance on Reading Achievement and Attitude Tests of Male and Female Readers at Eight Grade Levels.



The achievement scores of the male students were not affected by the lower attitude toward reading.

As may be seen in Figure 2, the relationship between students' attitude toward reading and reading achievement for male and female students depends on the grade placement level of the student. A visual analysis of the performance of the male and female students in Grades 1 through 8 revealed that the female students in this study indicated better attitudes toward reading than the male students.

Table 4 presents the correlations of reading achievement and attitude among male and female readers at eight grade levels. The correlations for male students were significant at four of the eight grade levels at the .05 level of confidence. The correlations for female students were significant at six of the eight grade levels at the .05 level of confidence. Another significant finding of this study was that at each grade level the correlations for the female students were higher than for the male students except for Grade 6. The correlation of reading achievement and attitude toward reading was much higher for female students than for male students.

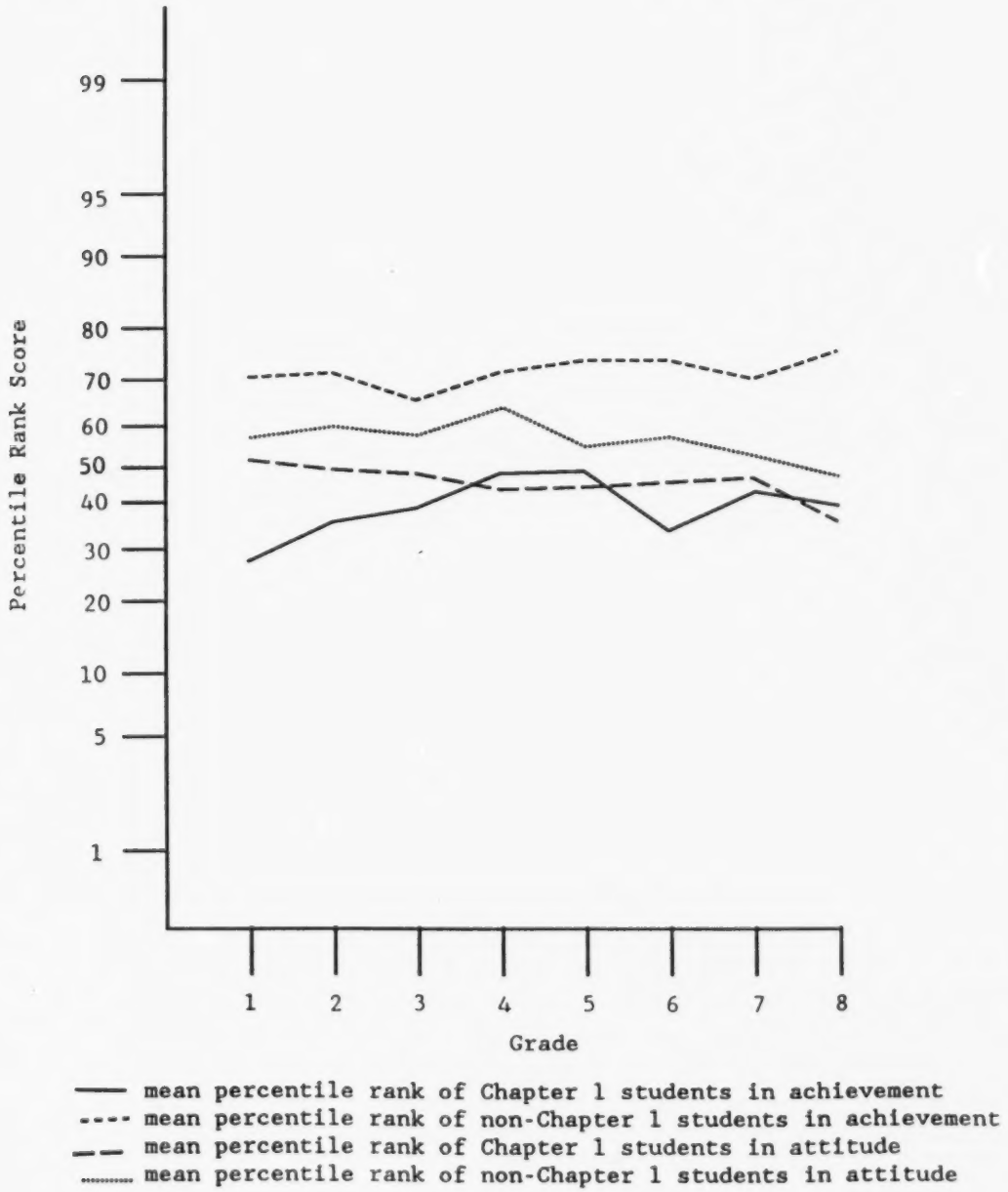
Another specific question asked in this study was: Is the pattern of relationship between attitude and reading achievement for students identified as Chapter 1 participants was the same as for the total population? On Figure 3 the mean percentile rank performance in reading achievement and attitude of Chapter 1 and non-Chapter 1 students were plotted at eight grade levels. The actual scores appear in Appendix B. In interpreting this information, it must be

Table 4

Correlations of Reading Achievement and Attitude Among Male and Female Readers

	N	Correlation	P
Grade 1 Male	53	.0348	.402
Grade 1 Female	46	.3292	.013
Grade 2 Male	62	.0294	.410
Grade 2 Female	62	.2848	.012
Grade 3 Male	56	.0826	.273
Grade 3 Female	56	.0855	.265
Grade 4 Male	35	.2743	.055
Grade 4 Female	56	.4331	.000
Grade 5 Male	60	.2781	.016
Grade 5 Female	63	.3641	.002
Grade 6 Male	50	.4477	.001
Grade 6 Female	49	.2308	.055
Grade 7 Male	59	.1734	.094
Grade 7 Female	55	.1907	.082
Grade 8 Male	67	.3500	.002
Grade 8 Female	47	.4171	.002
All Grades Male	442	.1650	.000
All Grades Female	434	.3046	.000

Figure 3. Mean Percentile Rank Performance on Reading Achievement and Attitude Tests of Chapter 1 and Non-Chapter 1 Students at Eight Grade Levels.



remembered that this does not reflect only students currently in the Chapter 1 program, but includes those students who were ever involved in the program for at least 1 year.

Figure 3 reveals that the non-Chapter 1 students scored higher than the Chapter 1 students in both reading achievement and attitude toward reading. A visual analysis of Figure 3 reveals that the non-Chapter 1 students have a slightly higher attitude toward reading and that there is a less positive attitude toward reading among students who have difficulty with reading. The attitude toward reading of students in the Chapter 1 program is lower at each grade level than the non-Chapter 1 students. That difference in performance in reading achievement and attitude toward reading was greatest at fourth grade and as close as six points at Grades 1 and 6. In the beginning at Grade 1 the attitude toward reading appeared to be the same for both Chapter 1 and non-Chapter 1 participants. At succeeding grade levels, however, the attitude toward reading scores tended to decline. At Grade 4, the attitude toward reading score falls below the achievement in reading performance of the Chapter 1 students.

Table 5 presents the correlations of reading achievement and attitude of Chapter 1 program participants at eight grade levels. The only grade levels where there was a significant relationship between students' attitude toward reading and reading achievement were at Grades 7 and 8. At Grade 7 the level of significance was .018 and at Grade 8 it was .008. Significant correlations were found at the .01 level of confidence for all grades included in this study

Table 5

Correlations of Reading Achievement and Attitude of Chapter 1 Students at Eight Grade Levels

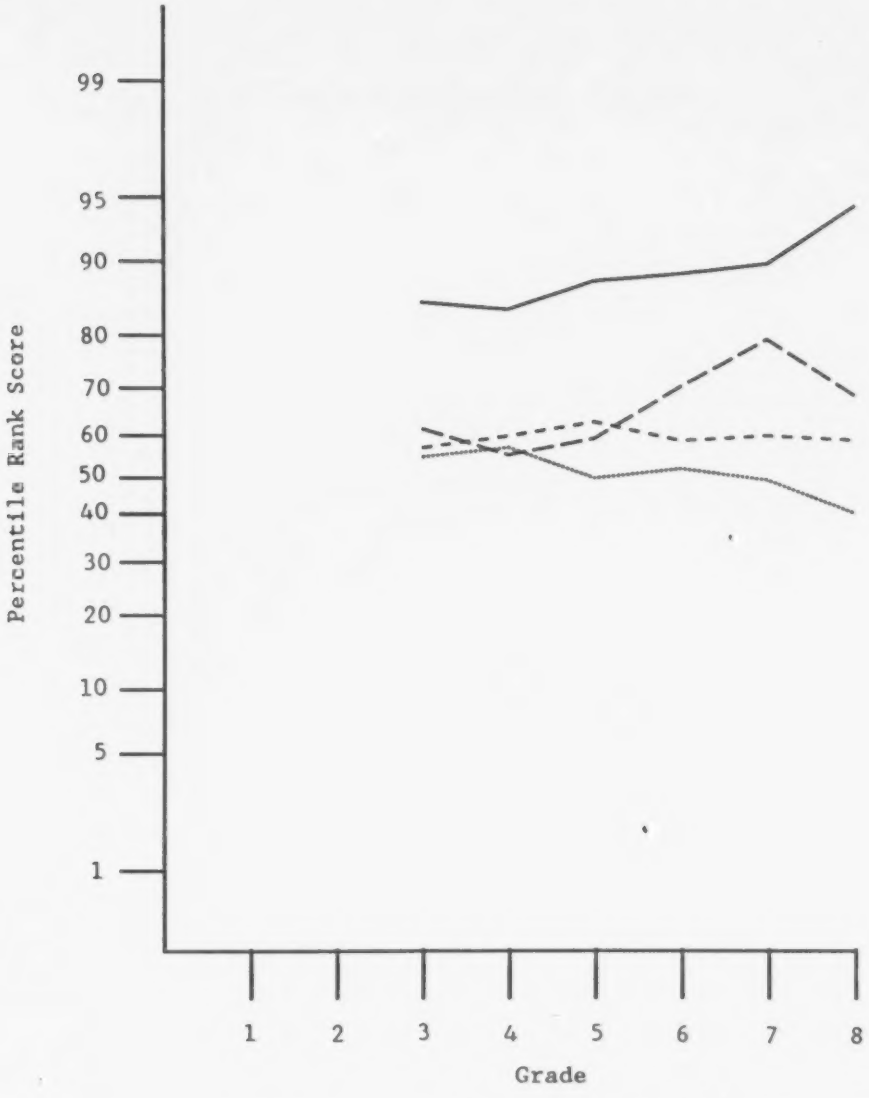
	N	Correlation	P
Grade 1 Chpt. 1 Yes	22	.3323	.065
Chpt. 1 No	77	.1138	.162
Grade 2 Chpt. 1 Yes	29	.0811	.338
Chpt. 1 No	95	.1067	.152
Grade 3 Chpt. 1 Yes	27	-.1223	.272
Chpt. 1 No	85	.0911	.203
Grade 4 Chpt. 1 Yes	28	.0410	.418
Chpt. 1 No	63	.2885	.011
Grade 5 Chpt. 1 Yes	30	.1298	.247
Grade 5 Chpt. 1 No	93	.2859	.003
Grade 6 Chpt. 1 Yes	25	.0005	.499
Grade 6 Chpt. 1 No	74	.3914	.000
Grade 7 Chpt. 1 Yes	35	.3552	.018
Grade 7 Chpt. 1 No	79	.1196	.147
Grade 8 Chpt. 1 Yes	38	.3913	.008
Grade 8 Chpt. 1 No	76	.3388	.001
All Grades Chpt. 1 Yes	234	.1424	.015
All Grades Chpt. 1 No	642	.1849	.000

regardless of Chapter 1 participation. The correlations were highest for the eighth-grade students whether or not they were in the Chapter 1 program.

The final specific question that was asked in this study was: Is the pattern of relationship between attitude and reading achievement for students identified as talented and gifted the same as for the total population? On Figure 4 the mean percentile rank performance in reading achievement and attitude of TAG and non-TAG students have been plotted at six grade levels. The actual scores appear in Appendix B. The performance of the students begin at Grade 3 on this figure, as there is no TAG program in the Independence Community School District in Grades 1 and 2. In interpreting this information it must be remembered that this does not reflect only those students currently in the TAG program, but includes those students who were ever involved in the program for at least 1 year. Another caution to be considered in interpretation was the low number of students involved in the TAG program at some grade levels. The number of students ranged from 5 to 18.

A visual analysis of Figure 4 reveals that the attitude toward reading percentile rank scores of the TAG and non-TAG students were the same at Grade 3. The scores continued to remain very similar until Grade 6. Then attitude toward reading appears to grow toward the respective achievement levels for each group of students. The relationship of students' attitude toward reading and their actual reading performance, as seen in Figure 4, lends feasibility to the

Figure 4. Mean Percentile Rank Performance on Reading Achievement and Attitude Tests of TAG and Non-TAG Students at Six Grade Levels



hypothesis that attitude tends to follow the achievement in reading level of both normal and high readers.

Table 6 presents the correlations of reading achievement and attitude of talented and gifted participants by grade level. The correlations of reading achievement and attitude toward reading for students participating in the talented and gifted program ranged from -.1551 for eighth grade to .5978 at Grade 4. The only significant correlations at the .05 level of confidence were found at Grades 4 and 5. It should be noted, however, that the low number of talented and gifted participating students at some grade levels may have been a limiting factor in the correlation of these results. Correlations between students' attitude toward reading and reading achievement were higher for all students identified as talented and gifted participants than for students not participating in the program.

Table 6

Correlations of Reading Achievement and Attitude of TAG Participants by Grade

	N	Correlation	P
Grade 1 No Program			
Grade 2 No Program			
Grade 3 TAG Yes	5	.2965	.314
Grade 3 TAG No	107	.1027	.146

Table 6, cont.

	N	Correlation	P
Grade 4 TAG Yes	13	.5978	.015
Grade 4 TAG No	78	.3807	.000
Grade 5 TAG Yes	18	.5886	.005
Grade 5 TAG No	104	.2509	.005
Grade 6 TAG Yes	14	.3013	.148
Grade 6 TAG No	85	.2895	.004
Grade 7 TAG Yes	4	.0255	.487
Grade 7 TAG No	110	.1843	.027
Grade 8 TAG Yes	11	-.1551	.324
Grade 8 TAG No	103	.3253	.000
All Grades TAG Yes	65	.4050	.000
All Grades TAG NO	810	.2166	.000

CHAPTER V

SUMMARY, CONCLUSIONS, AND IMPLICATIONS

The summary, conclusions, and implications of the results from this study are presented in this chapter. The purpose of this study was to investigate the developmental relationships between the attitude of students toward reading and their reading achievement. The study was conducted to determine various relationships between attitude and achievement with the intention of providing additional information concerning attitudes and attitude testing within school reading programs. The first part of this chapter summarizes the study. Conclusions are then drawn from these results in the second part of the chapter and implications of the study are then considered.

Summary

Attitude toward reading is emerging as an important area of reading research. If teachers are to promote positive attitudes or change negative attitudes, they must use some assessment tool or technique. The value of using an attitude scale to assess attitudes is that it enables teachers to pinpoint students' positive or negative attitudes expressed in understandable terms. It also allows educators to make curricular and instructional modifications in response to those attitudes.

This study investigated relationships dealing with the variables associated with attitudes toward reading. The specific variables included the students' achievement in reading, the gender of the

student, the grade placement level of the student in school, and whether the student had ever participated in either the Chapter 1 reading program or the talented and gifted (TAG) program.

The population for this study consisted of 876 students in Grades 1 through 8 enrolled in the Independence (Iowa) Community School District in the spring 1988. The students were from a white, middle-class, rural farming community. Analysis of students' attitudes toward reading and actual reading achievement test scores were collected for students in the first through eighth grades.

The students' attitudes toward reading were assessed through using the elementary form of the Estes Reading Attitude Scales for Grades 1 through 5 and the secondary form for Grades 6 through 8. Students' achievement in reading was measured by the appropriate level of the reading comprehension subtest of the Iowa Tests of Basic Skills (ITBS). Raw scores on both tests were converted to percentile rank scores and entered for computer analysis.

The mean percentile rank scores and standard deviations for performance on both the reading achievement test and attitude toward reading test were computed for all eight grade levels. Whereas in this study there was a trend toward a lower average attitude score, the reading achievement average appeared to be stable. This is in agreement with the findings of Foley, Honeker, and Crociata (1984) which showed that most students had a positive attitude toward reading regardless of their achievement level.

In examining the relationship of students' attitude toward reading and their achievement in reading, this study reported weak correlations. For example, two related studies (Johnson, 1964; Roettger, Szymczuk, & Millard, 1979) reported similar findings to those found in this study. They stated that, in general, there appeared to be a low positive correlation between students' expressed attitudes toward reading and their scores on the reading achievement tests. The findings of a related study by Lewis (1980) found similar results to this study. Although attitude toward reading had a statistically significant relationship with reading success, the low magnitude of the correlation limits the practical significance of the findings.

The present study reported that the subjects' gender was a significant factor in the correlations between students' attitude toward reading and achievement in reading. In this study, the correlations were significantly higher for female students than for male students. The attitudes toward reading of the female students tended to remain at the same level in relation to achievement, whereas the attitudes toward reading of the male students tended to decrease even though the achievement level remained the same. This study, therefore, revealed a difference in attitude toward reading between male and female readers. A related study (Johnson, 1964) found similar results, as girls in that study indicated a slightly better attitude toward reading than the boys.

Another major finding of the study, that talented and gifted students appeared to have very positive attitudes toward reading, was in agreement with the results of other studies. Other previous research had also reported that gifted and talented students have positive attitudes toward reading (Bobel, 1981; Goostree, 1981; Link, 1984).

Conclusions

The results of this study supported the following conclusions:

1. There was a low but consistent positive relationship between students' attitudes toward reading and actual reading achievement test scores for all students.

2. The achievement level in reading appeared to remain stable for the students in this study despite the considerable changes in attitude toward reading.

3. Attitude toward reading for the students in this study appeared to be maintained through the grades until Grade 8 in which there was a decrease in the attitude toward reading.

4. Correlations between students' attitudes toward reading and reading achievement were significantly higher for females students than for male students.

5. The drop in attitude seen in the total population was principally due to the drop in positive attitudes toward reading in the male students in Grade 7 and to the even more dramatic drop in Grade 8.

6. Although there was a lower positive attitude toward reading of the male students in this study, the actual performance of male and female students in reading achievement showed no difference.

7. For students of lower reading achievement, attitudes toward reading decreased over time. The attitude toward reading for the Chapter 1 program participants was at the same level as for the rest of the population in the lower grades. For Chapter 1 students, even though achievement in reading increased, at succeeding grade levels the attitude toward reading decreased.

8. Attitude toward reading tended to follow the achievement in reading level of both normal and high readers. The attitudes toward reading of TAG students and non-TAG students were the same at Grade 3 and remained the same until Grade 6. Then attitude toward reading grew toward the achievement in reading levels.

Instructional Implications

Implications for education can be made from this information. Teachers need to be aware that the development and measurement of attitudes toward reading in the affective domain is more complex than assessment in the cognitive area.

One concern revealed through this study is the decreasing attitude toward reading in the upper grade levels. For some students, a positive attitude toward reading in the lower grades may not be self-maintaining and may lessen over time. Attention by educators to attitude development and maintenance is important at all levels.

Another area of concern in this study is the less positive attitude toward reading of the male students as compared to the female students at all grade levels. It may be useful for teachers to identify the attitude toward reading of the male students in their classrooms. This would reveal which male students would benefit from engaging in activities designed to promote positive attitudes toward reading.

In relation to this study of Chapter 1 participants, it was revealed that there is a movement away from maintaining a positive attitude toward reading even though their actual performance in achievement was increasing. This indicates that there are specific needs for teachers of lower ability readers to develop activities to foster positive attitudes toward reading. This demonstrates a need for those students to engage in more significant reading activities.

Teachers must be informed as to instruments and methods that can be utilized to assess students' attitude toward reading. School districts need to make attitude assessment an integral part of the total testing program in the schools.

To plan and promote a successful school reading program, educators must commit themselves to deliberately developing and maintaining favorable attitudes toward reading as an important objective across all grade levels. Only when students have a positive attitude toward reading can the goal of students becoming lifelong readers be reasonably assured.

Suggestions for Further Research

Extended research into the area of reading attitudes of elementary and middle school age students is suggested by the results of the present study. The author suggests several related problems worthy of further research.

Teachers could be interviewed in regard to what are an individual student's attitudes toward reading. Students' perceptions of themselves could be meaningfully compared with teachers' perceptions of students' attitudes toward reading.

A further extension would involve teachers also since teachers probably exert an influence on student reading attitude. It is equally important to determine teachers' feelings toward reading and examine the relationship between teacher and student attitude.

Students could be asked to keep a listing or a log of what they had read. Students could be asked to record the amount of time they actually spent in each independent reading episode. The logs themselves could be organized in numerous ways in accordance with the sorts of information sought by the researchers.

Another research problem which may deserve investigation is what influence the home environment has on students' attitude toward reading. Before schools can effectively improve attitudes, it is necessary to understand the effects that parents and the home environment have on the reading attitudes of some students.

Extended research into the area of reading attitudes and interests of gifted and talented students is an area in need of more

research. Another population on which more research needs to be conducted is that of low-achieving students.

Long-term research conducted on a particular group of students is another direction which may warrant study. The administration of the Estes Attitude Scale at a later date to determine a possible change in attitude over a period of time is another consideration. Follow-up studies which reveal changes in reading attitudes might explain what impact specific reading programs and curriculums have on the students over time.

More research in refining existing attitude assessment instruments is needed. The development of new and more sophisticated and more comprehensive instruments that could be used for K-12 populations is necessary for continued research in the area of attitude assessment.

REFERENCES

Agin, P. A. (1975). An overview of recent research in reading. Elementary English, 52, 370-375.

Airasian, P. (1985). Review of Iowa tests of basic skills, forms 7 and 8. In J. V. Mitchell, Jr. (Ed.), The ninth mental measurements yearbook (pp. 718-722). Lincoln, NE: Buros Institute of Mental Measurements.

Alexander, J. E. (Ed.). (1979). Teaching reading. Boston: Little, Brown.

Alexander, J. E. (Ed.). (1983). Teaching reading (2nd ed.). Boston: Little, Brown.

Alexander, J., & Filler, R. (1976). Attitudes and reading. Newark, DE: International Reading Association.

Anderson, R., Hiebert, E., Scott, J., & Wilkinson, I. (1985). Becoming a nation of readers: The report of the commission on reading. Washington, DC: U.S. Department of Education.

Anderson, M. A., Tollefson, N. A., & Gilbert, E. C. (1985). Giftedness and reading: A cross-sectional view of differences in reading attitudes and behaviors. Gifted Child Quarterly, 29, 186-189.

Area Education Agency 7. (1988). A guide to curriculum development for an integrated language arts program. Cedar Falls, IA: Area Education Agency 7, Educational Services Division.

Arlin, M. (1976). Open education and pupils' attitudes. Elementary School Journal, 76, 219-228.

Askov, E., & Fischbach, T. (1973). An investigation of primary pupils' attitudes toward reading. Journal of Experimental Education, 41, 1-7.

Bobel, J., Jr. (1981). The attitudes and preferences of thirty-eight gifted intermediate grade readers toward their recreational reading habits and a profile of their pre-school reading readiness. Union: Kean College of New Jersey. (ERIC Document Reproduction Service No. ED 200 926)

Bond, G. L., & Tinker, M. A. (1973). Reading difficulties: Their diagnosis and correction. New York: Appleton-Century-Crofts.

Buros, O. K. (Ed.). (1968). Reading tests and reviews. Highland Park, NJ: Gryphon Press.

Cooter, R. B., Jr., & Alexander, J. E. (1984). Interest and attitude: Affective connections for gifted and talented readers. Reading World, 24, 97-102.

Cramer, E. H. (1975). A study of the relationships among mental imagery, reading comprehension, and reading attitude of eleventh and twelfth grade students (Doctoral thesis, University of Wisconsin, 1975). Dissertation Abstracts International, 36, 5764A.

Crews, M. L. C. (1978). A study of various factors in terms of attitudes toward reading (Doctoral dissertation, The Louisiana State University and Agricultural and Mechanical College.) (ERIC Document Reproduction Service No. ED 177 492)

Davis, P. M. (1978). An evaluation of journal published research on attitudes in reading, 1900-1977. Unpublished doctoral dissertation, University of Tennessee, Knoxville.

Deck, D., & Barnette, J. J. (1976). Measuring attitudes toward reading in large scale assessment. Paper presented at annual meeting of the American Educational Research Association, San Francisco, CA. (ERIC Document Reproduction Service No. ED 128 407)

Dryden, B. J. (1982). The development of a diagnostic reading attitude assessment for grades two through five. Reading Improvement, 19, 173-182.

Duffy, G. G., & Roehler, L. R. (1989). Improving classroom reading instruction (2nd ed.). New York: Random House.

Dulin, K. (1978). Reading and the affective domain. In S. Pflawm-Conner (Ed.), Aspects of reading education (pp. 106-124). Berkeley, CA: McCutchan.

Dulin, K. L., & Chester, R. D. (1974). A validation study of the Estes attitude scale. Journal of Reading, 18, 56-59.

Edwards, A. L., & Kenney, K. C. (1946). A comparison of the Thurstone and Likert techniques of attitude scale construction. Journal of Applied Psychology, 30, 72-83.

Epstein, I. (1980). Measuring attitudes toward reading. Princeton, NJ: ERIC Clearinghouse on Tests, Measurement, and Evaluation. (ERIC Document Reproduction Service No. ED 196 938)

Estes, T. H. (1971). A scale to measure attitudes toward reading. Journal of Reading, 15, 135-138.

Estes, T. H. (1972). Assessing attitudes toward reading. Paper presented at meeting of International Reading Association, Detroit, MI. (ERIC Document Reproduction Service No. ED 063 077)

Estes, T. H. (1975). Attitude toward reading: Alternatives in assessment. Paper presented at Lehigh Reading Conference, Bethlehem, PA. (ERIC Document Reproduction Service No. ED 105 415)

Estes, T. H., Estes, J. J., Richards, H. C., & Roettger, D. M. (1981). Estes attitude scales manual for administration and interpretation. Austin, TX: PRO-ED.

Estes, T. H., & Johnstone, J. P. (1974). Assessing attitudes towards reading: A validation study. In P. L. Nacke (Ed.), Interaction: Research and practice for college-adult reading (Twenty-third yearbook of the National Reading Conference) (p. 219-223). Clemson, SC: National Reading Conference.

Estes, T. H., & Vaughan, J. L., Jr. (1978). Measuring attitudes. In Reading and learning in the content classroom (pp. 58-65). Boston: Allyn & Bacon.

Estes, T. H., & Vaughan, J. L., Jr. (1985). Measuring attitudes. In Reading and learning in the content classroom (2nd ed.) (pp. 63-70). Newton, MA: Allyn & Bacon.

Ewing, J. M. (1977). Assessing attitudes to reading. Paper presented at the annual meeting of the Reading Association of Ireland, Dublin, Ireland. (ERIC Document Reproduction Service No. ED 162 250)

Foley, J., Honeker, C., & Crociata, R. (1984). A study of student viewpoints and reading achievement. Master's thesis, Kean College of New Jersey, Union, NJ. (ERIC Document Reproduction Service No. ED 244 240)

Fredericks, A. (1982). Developing positive reading attitudes. Reading Teacher, 36, 38-40.

Gates, A. (1961). Sex differences in reading ability. The Elementary School Journal, 61, 431-434.

Goostree, R. C. (1981). A study of the reading interests and attitudes of fourth, fifth, and sixth grade gifted children in the state of Missouri. Master's thesis, Southwest Missouri State University, Springfield, MO.

Hall, D. S. (1978). The relationship of reading attitudes to achievement, sex, and social class among fifth grade pupils. Paper presented at the annual meeting of the International Reading Association, Houston, TX. (ERIC Document Reproduction Service No. ED 158 252)

Hammons, M. B., Knafle, J. D., Pascarella, E. T., & Cramer, E. H. (1981). Attitudes toward reading: Suburban adolescents versus inner-city adolescents and polygraph verification. Paper presented at the 31st annual meeting of the National Reading Conference, Dallas, TX. (ERIC Document Reproduction Service No. ED 216 307)

Harris, A. J., & Sipay, E. R. (1985). How to increase reading ability (8th ed.). New York: Longman.

Heathington, B., & Alexander, J. (1984). Do classroom teachers emphasize attitudes toward reading? Reading Teacher, 37, 484-488.

Heilman, A. W. (1972). Principles and practices of teaching reading. Columbus, OH: Charles E. Merrill.

Hieronymus, A. N., & Hoover, H. D. (1986). Iowa tests of basic skills manual. Chicago: Riverside.

Huck, C. S. (1973). Strategies for improving interest and appreciation in literature. In P. C. Burns & L. M. Schell (Eds.), Elementary school language arts (pp. 203-210). Chicago: Rand McNally.

Johnson, L. G. (1964). A description of organization, methods of instruction, achievement, and attitudes toward reading in selected elementary schools. (Doctoral dissertation, University of Oregon, 1964). Dissertation Abstracts International, 25, 6433.

Kennedy, L. D., & Halinski, R. S. (1975). Measuring attitudes: An extra dimension. Journal of Reading, 18, 518-522.

Kolker, B. (1983). Processing print. In J. E. Alexander (Ed.), Teaching reading (2nd ed.). Boston: Little, Brown.

Lehr, F. (1982). Identifying and assessing reading attitudes. Journal of Reading, 26, 80-83.

Levine, M. A., & Singleton, B. A. (1981). Alternative approaches to the assessment of reading attitude. (ERIC Document Reproduction Service No. ED 227 442)

Lewis, J. (1980). The relationship between attitude toward reading and reading success. Educational and Psychological Measurement, 40, 261-262.

Likert, R. S. (1932). A technique for the measurement of attitudes. Archives of Psychology, 140, 5-55.

Link, B. R. (1984). Reading attitudes and interests of gifted and talented children in the middle grades. Paper presented to the Department of Teacher Education and Professional Development, Central Michigan University, Mount Pleasant, MI. (ERIC Document Reproduction Service No. ED 249 708)

Lohman, L. (1983). Attitudes toward reading of the disabled reader and the normal reader. Master's thesis, Kean College of New Jersey, Union, NJ. (ERIC Document Reproduction Service No. ED 233 317)

McMillen, L. A., & Sloan, C. A. (1980). Teachers' attitudes toward reading and their students' reading habits. (ERIC Document Reproduction Service No. ED 220 801)

Miller, J. (1985). Review of the Estes attitude scales: Measures of attitudes toward school subjects. In J. V. Mitchell, Jr. (Ed.), The ninth mental measurements yearbook (pp. 561-562). Lincoln, NE: Buros Institute of Mental Measurements.

National Assessment of Educational Progress. (1981). Reading, thinking, and writing: Results from the 1979-80 national assessment of reading and literature. Denver, CO: Education Commission of the States. (ERIC Document Reproduction Service No. ED 209 641)

Nitko, A. (1985). Review of the Iowa tests of basic skills, forms 7 and 8. In J. V. Mitchell, Jr. (Ed.), The ninth mental measurement yearbook (pp. 721-723). Lincoln, NE: Buros Institute of Mental Measurement.

Parker, A., & Paradis, E. (1986). Attitude development toward reading in grades one through six. Journal of Educational Research, 79, 313-315.

Parker, W. J. (1978). A comparison of attitudes of good and poor readers toward reading and school. Unpublished master's thesis, East Tennessee State University, Johnson City, TN.

Payne D. (1977). Review of the Estes attitude scales. Journal of Educational Measurement, 14, 291-293.

Plake, B. S., Piersel, W. C., Harding, R. E., & Reynolds, C. R. (1982). The relationship of ethnic group membership to the measurement and meaning of attitudes toward reading: Implications for validity of test score interpretations. Educational and Psychological Measurement, 42, 1259-1267.

Plunkett, V. R. L. (1985). From title I to chapter 1: The evolution of compensatory education. Phi Delta Kappan, 66, 533-537.

Pumfrey, P. D. (1976). Reading tests and assessment techniques. London: Hodder & Stoughton Educational.

Pumfrey, P. D. (1977). Measuring reading abilities. London: Hodder and Stoughton Educational.

Richards, H., & Clark, D. (1983). Factor-analytic replications of the Estes attitude scales. Journal of Psychoeducational Assessment, 1, 387-394.

Robeck, M. C., & Wilson, J. A. R. (1974). Psychology of reading: Foundations of instruction. New York: John Wiley & Sons.

Roettger, D. (1980). Elementary students' attitudes toward reading. Reading Teacher, 33, 451-453.

Roettger, D., Szymczuk, M., & Millard, J. (1979). Validation of a reading attitude scale for elementary students and an investigation of the relationship between attitude and achievement. Journal of Educational Research, 72, 138-142.

Saks, D. (1981). The reading attitudes of high achieving seventh grade students and their teachers' perceptions of those reading attitudes. Master's thesis, Kean College of New Jersey, Union, NJ. (ERIC Document Reproduction Service No. ED 200 921)

Seiler, L. H., & Hough, R. L. (1970). Empirical comparisons of Thurstone and Likert techniques. In G. F. Summers (Ed.), Attitude measurement. Chicago: Rand McNally.

Shapiro, J. E. (1979). Developing an awareness of attitudes. In J. Shapiro (Ed.), Using literature and poetry effectively (pp. 2-7). Newark, DE: International Reading Association.

Shaw, M. E., & Wright, J. M. (1967). Scales for the measurement of attitudes. New York: McGraw-Hill.

Smith, L. B. (1982). Sixth graders write about reading literature. Language Arts, 59, 357-363.

Squire, J. R. (1969). What does research in reading reveal about attitudes toward reading? English Journal, 58, 523-533.

Summers, E. G. (1976). A review of research and bibliography on published attitudinal instruments in reading. Paper presented at the annual meeting of the International Reading Association, Anaheim, CA. (ERIC Document Reproduction Service No. ED 123 558)

Summers, E. G. (1977). Instruments for assessing reading attitudes: A review of research and bibliography. Journal of Reading Behavior, 9, 137-165.

Swanson, B. (1982). The relationship between attitude toward reading and reading achievement. Educational Psychological Measurement, 42, 1303-1304.

Teale, W. (1983). Assessing attitudes toward reading: Why and how. In J. Thomas & R. Loring (Eds.), Motivating children and young adults to read (pp. 3-6). Phoenix, AZ: Oryx Press.

Turner, T. N., & Alexander, J. E. (1980). Promising practices for improving reading attitudes. Paper presented at the annual meeting of the Southeastern Regional Conference of the International Reading Association, Nashville, TN. (ERIC Document Reproduction Service No. ED 188 108)

Vaughn, J. L., Jr. (1980). Affective measurement instruments: An issue of validity. Journal of Reading, 24, 17-18.

Wallbrown, F., Levine, M., & Engin, A. (1981). Sex differences in reading attitudes. Reading Improvement, 18, 226-234.

Waller, M. I., Trismen, D. A., & Wilder, G. (1977). A measure of student attitude toward reading and self as reader--A summary report. Journal of Reading Behavior, 9, 123-127.

Wendelin, K. H., & Zinck, R. A. (1983). How students make book choices. Reading Horizons, 23, 84-88.

Wigfield, A., & Asher, S. R. (1984). Social and motivational influences on reading. In P. D. Pearson (Ed.), Handbook of reading research (pp. 423-452). New York: Longman.

Wilson, J. A. R., Robeck, M. C., & Michael, W. B. (1969). Psychological foundations of learning and teaching. New York: McGraw-Hill.

Witty, P. A. (1971). Reading for the gifted and creative student. Newark, DE: International Reading Association. (ERIC Document Reproduction Service No. ED 070 044)

APPENDICES

Appendix A

ESTES ATTITUDE SCALES

(Elementary Form)

Thomas H. Estes, Julie Johnstone Estes
Herbert C. Richards, Doris Roettger

Name _____ M ☐ F ☐

School _____ Grade _____

Teacher _____ Yr. Mo. Day

Examiner _____ Date Tested _____ _____ _____

Examiner's Title _____ Date of Birth _____ _____ _____

Age _____ _____ _____

Score Summary

	Raw Score	Scaled Score	Percentile Rank
I. Mathematics	_____	_____	_____
II. Reading	_____	_____	_____
III. Science	_____	_____	_____

DIRECTIONS:

These Scales measure how you feel about subjects taught in school. On the following pages you will find some sentences about school subjects. You will be asked to rate each sentence on this scale:

[A] will mean "I Agree"

[?] will mean "I Don't Know"

[D] will mean "I Disagree"

Please be as honest as possible in rating each sentence. Your ratings will not affect your grade.

Example:

Playing ball is fun for me. [A] [?] [D]

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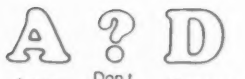
Reading Attitude Scale



15. Reading is fun for me. A ? D
16. Books are boring. A ? D
17. Reading is a good way to spend spare time. A ? D
18. Reading turns me on. A ? D
19. Books do not make good presents. A ? D
20. Reading is rewarding to me. A ? D
21. Reading becomes boring after about a half hour. A ? D
22. Free reading teaches me something. A ? D
23. There should be time for free reading during the school day. A ? D
24. There are many books I hope to read. A ? D
25. Reading is something I can do without. A ? D
26. A certain amount of time during summer should be set aside for reading. A ? D
27. Books usually are good enough to finish. A ? D
28. Reading is not exciting. A ? D

ESTES ATTITUDE SCALES

(Secondary Form)

Thomas H. Estes, Julie Johnstone Estes
Herbert C. Richards, Doris Roettger

	Yr.	Mo.	Day
Date Tested	___	___	___
Date of Birth	___	___	___
Age	___	___	___

M ☐ F ☐

Name _____ Grade _____

School _____ Teacher _____

Examiner's Name _____ and Title _____

ESTES ATTITUDE SCALES

(Secondary Form)

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DIRECTIONS: These scales measure how you feel about courses taught in school. On the front and back of this sheet are statements about school subjects. Read each statement and decide how you feel about it. Rate each statement on a scale of 1 to 5, as follows:

5 will mean "I strongly agree"
4 will mean "I agree"
3 will mean "I cannot decide"
2 will mean "I disagree"
1 will mean "I strongly disagree"

Use the separate answer sheet to indicate your feeling toward each statement. Show your answers by putting an X in the proper box. Please be as honest as possible in rating each statement. Your ratings will not affect your grade in any course.

Reading

31. Reading is for learning but not for enjoyment.
32. Spending allowance on books is a waste of good money.
33. Reading is a good way to spend spare time.
34. Books are a bore.
35. Watching T.V. is better than reading.
36. Reading is rewarding to me.
37. Books aren t usually good enough to finish.
38. Reading becomes boring after about an hour.
39. Most books are too long and dull.
40. There are many books which I hope to read.
41. Books should only be read when they are assigned.
42. Reading is something I can do without.
43. Some part of summer vacation should be set aside for reading.
44. Books make good presents.
45. Reading is dull.

ESTES ATTITUDE SCALES

(Secondary Answer Sheet)

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Reading

	Strongly Agree	Agree	Cannot Decide	Disagree	Strongly Disagree
31	1	2	3	4	5
32	1	2	3	4	5
33	5	4	3	2	1
34	1	2	3	4	5
35	1	2	3	4	5
36	5	4	3	2	1
37	1	2	3	4	5
38	1	2	3	4	5
39	1	2	3	4	5
40	5	4	3	2	1
41	1	2	3	4	5
42	1	2	3	4	5
43	5	4	3	2	1
44	5	4	3	2	1
45	1	2	3	4	5

Appendix B

Data for Figure 2: Mean Percentile Rank Performance on Reading Achievement and Attitude Tests of Male and Female Readers at Eight Grade Levels

			Reading Achievement Test		Reading Attitude Test	
		N	X	SD	X	SD
Grade 1	male	53	53	31	57	32
	female	46	52	31	54	29
Grade 2	male	62	55	30	51	27
	female	62	70	22	64	23
Grade 3	male	56	55	26	50	28
	female	56	62	21	61	28
Grade 4	male	35	65	21	52	29
	female	56	62	23	61	28
Grade 5	male	60	62	24	41	25
	female	63	67	21	62	24
Grade 6	male	50	61	29	51	26
	female	49	66	24	58	28
Grade 7	male	59	58	25	42	24
	female	55	64	21	62	21
Grade 8	male	67	60	29	32	27
	female	47	66	26	57	27

Appendix B

Data for Figure 3: Mean Percentile Rank Performance on Reading Achievement and Attitude Tests of Chapter 1 and Non-Chapter 1 Students at Eight Grade Levels

			Reading Achievement Test		Reading Attitude Test	
		N	X	SD	X	SD
Grade 1	Chap. 1	22	27	19	51	28
	Non-Chap. 1	77	60	29	57	31
Grade 2	Chap. 1	29	35	19	49	24
	Non-Chap. 1	95	71	24	60	26
Grade 3	Chap. 1	27	38	16	48	32
	Non-Chap. 1	85	65	22	58	27
Grade 4	Chap. 1	28	46	18	42	28
	Non-Chap. 1	63	71	19	64	26
Grade 5	Chap. 1	30	47	21	43	24
	Non-Chap. 1	93	73	20	55	27
Grade 6	Chap. 1	25	33	19	45	26
	Non-Chap. 1	74	73	21	57	27
Grade 7	Chap. 1	35	42	20	47	25
	Non-Chap. 1	79	69	20	53	25
Grade 8	Chap. 1	38	38	23	35	28
	Non-Chap. 1	76	75	22	46	30

Appendix B

Data for Figure 4: Mean Percentile Rank Performance on Reading Achievement and Attitude Tests of TAG and Non-TAG Students at Six Grade Levels

			Reading Achievement Test		Reading Attitude Test	
		N	X	SD	X	SD
Grade 1	No Program					
Grade 2	No Program					
Grade 3	TAG	5	84	10	61	13
	Non-TAG	107	57	23	55	29
Grade 4	TAG	13	83	13	55	24
	Non-TAG	78	60	21	57	29
Grade 5	TAG	18	87	12	59	25
	Non-TAG	104	63	22	50	27
Grade 6	TAG	14	88	14	70	21
	Non-TAG	85	59	26	52	27
Grade 7	TAG	4	89	6	79	3
	Non-TAG	110	60	23	50	25
Grade 8	TAG	11	94	9	68	26
	Non-TAG	103	59	27	40	28